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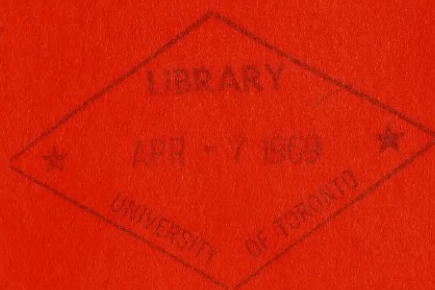
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Report no. 1


FEDERAL EXPENDITURES ON RESEARCH IN THE ACADEMIC COMMUNITY

1966-67
1967-68



EDUCATION SUPPORT BRANCH
DEPARTMENT OF THE SECRETARY OF STATE

CANADA 1968



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**FEDERAL EXPENDITURES ON RESEARCH
IN THE ACADEMIC COMMUNITY
1966-67, 1967-68**

Education Support Branch

Department of the Secretary of State

Report No. 1

Ottawa, 1968

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IN THE ACADEMIC COMMUNITY

1968-69, 1967-68

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INTRODUCTION

The interest of the Department of the Secretary of State in expenditures on research in the academic community is noted in Section 14 (2) of the *Federal-Provincial Fiscal Arrangements Act, 1967* –

In determining the operating expenditures incurred for post-secondary education by or in respect of an educational institution during a financial year of the institution, there shall be deducted from the amount thereof otherwise determined

(a) any amount received by the institution in the year for assisted, sponsored or contract research; and

(b) any amount received by the institution in the year from Her Majesty in right of Canada or any agent thereof or from the Canada Council; except as otherwise provided by regulation.

To obtain a clearer understanding of federal expenditures on research in the academic community, the Education Support Branch of the Department of the Secretary of State conducted a comprehensive survey of all federal organizations. This survey covered research and post-secondary education for the 1966-67, and 1967-68 fiscal years. Permission to publish amended material has been granted by the respective organizations, although only information concerning research expenditures was used for this report.

The term academic community as applied here includes post-secondary educational institutions, research organizations, and all associations, groups and individuals engaged in research activity. Expenditures for 'in house' research carried out by federal public servants are excluded. Not excluded, however, are a number of noteworthy research support activities for which the academic community engaged public servants and their organizations, services, and facilities, supervised research studies and collaborated with universities on research, etc.

The main text of this report provides a brief description of each federal organization's involvement with research support, and is followed by a table for that particular organization containing amounts expended under a number of basic categories. Where an organization did not offer an estimate of its research support, such will be noted in the text. Data for some departments are tabulated by branches or divisions depending upon the extent of the departments' expenditures.

The Basic Categories

Research expenditures have been divided into six basic categories. Where organizations have granted permission to include the names of academic institutions, associations or organizations to which recipients were affiliated these have been listed in abbreviated form on the tables accompanying the main text. The Canada Council, Medical Research Council, and National Research Council will not be detailed as to awardees and institutions in this report. This information is quite extensive and is readily available from the annual reports of these organizations.

Capital Grants: Refers to construction costs and equipment purchases primarily for research.

Operating Grants: Funds awarded to defray research costs including block or development grants for university schools, faculties, or departments designed to maintain existing research projects, and grants to assist new areas of scientific enquiry.

Awards: Scholarships or fellowships awarded by a federal organization for an individual recipient to engage in full-time research studies, training or work. The bulk of the awardees are at or beyond the doctoral level.

Research Grants: Funds awarded to individuals or groups of individuals generally affiliated with academic research institutions or associations engaged in specific programs of research.

Research Contracts: Similar to research grants except that these are initiated formally by a federal organization and negotiated and concluded by agreement or contract. This category includes fees received by academics for consultations related to specific research programs.

Other Research Support: Actual or estimated expenditures and assistance made available by federal organizations to research students and scholars, not included in the five previous categories.

Many, if not all, federal organizations render assistance to scholars and students through correspondence, meetings etc. There are, however, certain organizations whose personnel are in constant contact with the academic community and whose facilities are utilized on a regular basis by scholars and students. Technical departments, museums, archives and libraries included in this category are noted in the text of this report.

Appendix A contains a master table of the six basic categories for all federal organizations and pie charts for the two fiscal years. Appendix C contains a list of permanent federal organizations which were contacted but not involved with research expenditures in the academic community during the period surveyed. Many have their own 'in-house' research programs.

Royal and other commissions, inquiries and task forces were excluded because they are temporary bodies and are not part of the federal administrative structure. Nevertheless, there is a note on their expenditures in the sections dealing with the Department of Labour and the Privy Council, and Appendix B contains tables of their expenditures.

ABBREVIATIONS USED IN TABLES

AC	Acadia University Wolfville, N.S.	EP	École Polytechnique (Université de Montréal) Montréal, P.Q.
AG	Department of Agriculture	EST	Estimate
AINA	Arctic Institute of North America Montreal, P.Q.	FMC	Franklin and Marshall College Lancaster, Pa.
ALAS	University of Alaska College, Alaska.	FRON	Frontier College Toronto, Ont.
AMST	Amherst College Amherst, Mass.	FS	Florida State University
APEC	Atlantic Provinces Economic Council	GSC	Georgia State College Atlanta, Ga.
ARC	Alberta Research Council	GU	Guelph University
ATA	Atlantic Air Survey	GWU	George Washington University Washington, D.C.
AUCC	Assoc. of Universities and Colleges of Canada Ottawa, Ont.	HARV	Harvard University
BCRC	British Columbia Research Council	IBM	International Business Machines
BISH	Bishop's University Lennoxville, P.Q.	ILL	University of Illinois
BRAN	Brandon University	IMH	Institute of Microbiology and Hygiene Laval des Rapides, P.Q.
BRIT	Great Britain	IND	University of Indiana Bloomington, Ind.
BRO	Brock University St. Catharines, Ont.	IP	Institut de Paléontologie Paris, France.
BROW	Brown University Providence, R.I.	ISU	Iowa State University
CALF	University of California	JH	Johns Hopkins University
CALG	University of Calgary	LAKE	Lakehead University
CARL	Carleton University	LAUR	Laurentian University Sudbury, Ont.
CBQ	Conseil de Bien-Être de Québec Quebec City, P.Q.	LAV	Laval University
CCS	Centre for Community Studies Ottawa, Ontario	LETH	Lethbridge University
CHIC	University of Chicago	LOY	Loyola University Montréal, P.Q.
CINN	University of Cincinnati	LSE	London School of Economics and Political Science (University of London)
COL	Colorado College Colorado Springs, Col.	MA	Le Centre des Études Universitaires, Musée d'Archaeologie, Trois-Rivières, P.Q.
CSGB	Canadian University Society of Great Britain London, U.K.	MBL	Marine Biological Laboratory Plymouth, U.K.
CRM	Council of Resource Ministers	McG	McGill University
CORN	Cornell University	McM	McMaster University
CU	Chandigarh University Chandigarh, India	MD	University of Maryland College Park, Md.
DAL	Dalhousie University	MEM	Memorial University
DOON	Doon School of Fine Arts Doon, Ont.		
DU	Duke University Durham, N.C.		

MGH	Montreal General Hospital	SMU	Southern Methodist University Dallas, Texas.
MICH	University of Michigan	SRC	Saskatchewan Research Council
MINN	University of Minnesota	StDU	St. Dunstan's University Charlottetown, P.E.I.
MONC	Université de Moncton	StFX	St. Francis Xavier University Antigonish, N.S.
MONT	Université de Montréal	StHY	St. Hyacinthe (Université de Montréal)
MSH	Mount Sinai Hospital Toronto, Ont.	StP	St. Paul's University Ottawa, Ont.
MSU	Michigan State University East Lansing, Mich.	SUNY	State University of New York
MTA	Mount Allison University Sackville, N.B.	TAM	Texas A and M University
NBRP	New Brunswick Research and Productivity Council	TMM	Texas Memorial Museum Austin, Texas.
NC	University of North Carolina Chapel Hill, N.C.	TO	University of Toronto
NDN	Notre Dame University of Nelson Nelson, B.C.	TR	Trent University Peterborough, Ont.
NFB	National Film Board	TUR	University of Turku Finland.
NSRF	Nova Scotia Research Foundation	UA	University of Alberta
NST	Nova Scotia Technical College Halifax, N.S.	UBC	University of British Columbia
NW	Northwestern University Chicago, Ill.	UI	University of Iowa
OH	Ohio State University	UM	University of Manitoba
ORF	Ontario Research Foundation Toronto, Ont.	UNB	University of New Brunswick
OTT	University of Ottawa	UNM	University of New Mexico
PRIN	Princeton University	UPP	University of Uppsala Sweden.
PTE	Private researcher, consultant or contractor	US	University of Saskatchewan
PU	Purdue University Lafayette, Ind.	USF	University of South Florida
PW	Prince of Wales College Charlottetown, P.E.I.	UTA	Utah State University Logan, Utah.
QU	Queen's University	UW	University of Wisconsin
RMC	Royal Military College Collège Militaire Royale Royal Roads	VICT	University of Victoria
ROM	Royal Ontario Museum	WASH	University of Washington
RVH	Royal Victoria Hospital Montreal, P.Q.	WAT	University of Waterloo
SAIT	Southern Alberta Institute of Technology	WIND	University of Windsor
SCH	Sick Children's Hospital Toronto, Ont.	WLU	Waterloo Lutheran University
SFU	Simon Fraser University	WM	William and Mary College Williamsburg, V.A.
SGW	Sir George Williams University	WO	University of Western Ontario
SHER	Université de Sherbrooke	WPG	University of Winnipeg
SIU	Southern Illinois University	YCH	York Central Hospital, Toronto, Ont.
		YORK	York University
		YUK	Yukon Institute

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AGRICULTURE

The basic reasons for the Department of Agriculture's long record of support for research are

1. to increase the volume of quality agricultural research in Canadian universities and in so doing to improve the balance between the work of government and university laboratories, and
2. to improve graduate education in the area while supplying more well trained agricultural scientists of the types most needed in Canada.

Operating Grants

One of the Department's most important programs of research support is that of operating grants which

. . . are made to individual investigators as contributions towards the normal operating costs of specific proposed projects. These grants are not intended to cover the full cost of the research. Space and basic facilities at the investigator's university are prerequisites to the award of a grant. The grant may cover stipends for post-graduate students and postdoctorate fellows, salaries of sub-professional assistants, and costs for supplies, materials, required travel, and special equipment. Generally, a substantial portion must be allocated to stipends. Grants are available to staff members of Canadian universities for projects with definite implications of value to agricultural industry.¹

Outside of these general limitations, the Department follows a policy of complete non-interference with the university research done in relation to its grants.

The Operating Grants Program is run under the guidance of the Canadian Agricultural Services Coordinating Committee. It is upon the recommendations of the research and education section of this committee that grants are made. The Committee consists of representatives of the federal and provincial governments (Deputy Ministers of Agriculture), the Quebec Agricultural Research Council, the Ontario Agricultural Research Institute, the National Research Council and the universities (Deans of Faculties of Agriculture). The

Awards Selection Committee consists of three officers of the Department one of whom acts as chairman, two members of the universities to be nominated by the deans, and one ex officio member from the NRC Agriculture and Forestry Committee. Those administering the Operating Grants Program make an effort to complement rather than duplicate or replace other research grant programs in particular the grant programs of NRC.

In accordance with this report's definitions of basic categories, operating grants might have been listed under research grants; however, since the Department refers to them as operating grants, they have been placed in this category. During 1966-67, a total of \$304,660 was granted and in 1967-68, \$479,970 was spent.

Research Grants

Financing of the Agricultural Economics Research Council of Canada is shared by the federal and provincial governments, agricultural business and organizations. The basis of the federal grant is one-half the amount contributed by the others, to a maximum of \$250,000 in five years. In the five year period 1962-1963 to 1966-1967, the Department's contribution was \$162,168. A total of \$9,668 was paid in 1966-67 and \$27,877 in 1967-68.

Research Contracts

Extra Mural Research Contract Grants (EMR) are awarded

. . . in support of research problems of direct concern to any one of the various branches of the Canada Department of Agriculture. They are negotiated between an established researcher and a senior officer of the Department and are recommended by the Director-General of the Branch. In special cases, they may be initiated by the Department to assist in filling a serious gap in the total agricultural research effort in Canada. Control of EMR contract grants is vested in a Canada Department of Agriculture Committee appointed by, and responsible to the Deputy Minister.²

Such a program tends to fuse the meaning of research grants with research contracts.

¹ *Operating Grants and Extra Mural Research Contracts*, Canada Department of Agriculture, Ottawa.

² *Ibid.*

Recipient institutions of EMR contract-grants have been noted under the research contracts column of the table. Like the operating research grant, it can also be used to employ graduate students, postdoctoral fellows, etc. Both EMR and Operating Grants include economic as well as biological research projects. The amounts are included in the totals tabulated.

As a result of its interest in maintaining a steady growth in agricultural research and education, the Department proposes to increase its expenditures in the operating and EMR programs. In addition to the EMR Program, contracts were made with two research consultants in each year.

Other Research Support

It is significant to note the cooperation which exists between the Department and universities in teaching and research. The Department's regional laboratories have been established on a number of university campuses allowing for a greater degree of cooperation and coordination with the academic community. A recent departmental survey highlighted the following:

1. About 80 per cent of all the Department's research establishments enjoy a degree of cooperation with the universities. Collaborative programs have been developed even in cases where there is some geographic distance between the university and the departmental establishment;
2. Approximately 6.5 per cent of all departmental research projects, excluding EMR, are conducted in collaboration with the universities;
3. Research establishments located on university campuses show that proximity

influences the use of departmental research facilities by graduate students, as well as the inclusion of departmental personnel in the academic community as members of university committees, guest lecturers and academic supervisors;

4. The survey indicated that during the 1966-67 fiscal year, departmental personnel from 34 establishments contributed to the programs of 21 Canadian and 16 foreign universities. Departmental involvement consisted of 721 hours of lectures, 487 hours of laboratory supervision and instruction, participation in 112 cooperative projects, and membership on 91 university committees. In addition, the Department's laboratories were used by approximately 68 graduate students working towards advanced degrees, of which 49 were under the direction of departmental personnel. Approximately 95 per cent of this co-operation was with Canadian universities.
5. The Department has made grants in both fiscal years to support the establishment of a veterinary college at the University of Saskatchewan, Saskatoon Campus. This college will facilitate research and teaching of veterinary medicine in western Canada.

The extent of departmental involvement with the academic community is not surprising since much agricultural research in Canada has been carried out by Department of Agriculture personnel. Many staff members have achieved high scholarly reputations not only in Canada but in the international scientific community as well. As a result, the Department attracts graduate and research students to its laboratories.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	27,000 UBC 50,940 UA 53,550 US 44,500 UM 55,670 GU 41,700 McG 23,300 LAV 8,000 StHY	—	9,668	30,900* 5-US 3,000 1-UM 11,650 1-SRC 28,200 6-McG 17,140 2-TO 20,200 7-UBC 7,000 1-GU 2,800 1-WO 7,910 1-OTT 8,450 1-CARL 3,500 1-UA consultants: 1,500 US 9,500 GU	—
	304,660		9,668	151,750	
Grand Total					466,078
1967-1968					
—	35,200 UBC 59,600 UA 74,160 US 75,000 UM 114,325 GU 84,385 McG 29,300 LAV 8,000 StHY	—	27,877	1,000 1-VICT 22,700 5-UBC 8,000 1-BCRC 15,500 4-US 4,000 1-SRC 3,000 1-UM 7,000 1-WO 13,000 2-GU 15,880 2-TO 8,000 1-QU 19,000 2-CARL 9,900 1-OTT 9,300 2-McG 8,500 1-StDU consultants: 4,750 GU 4,600 UBC	—
	479,970		27,877	154,130	
Grand Total					661,977

* No. of awards.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

Other Research Support

The Board engages honours chemistry students from the University of Manitoba during the summer period. These students undertake short-term research tasks under the

direction of senior members of the Board's research laboratory. Thus, they receive some training and research experience while making a contribution. There have also been some Colombo Plan students studying and training in the Board's research laboratory.

AIR CANADA

Research Contracts

There is no established research contract program at Air Canada. When the need arises, contracts are let to universities, professors and students for special projects. Many of these are

for micro-economic studies and the amounts expended vary considerably. The Company did not provide a detailed breakdown of its contracts, only the total amount expended in each year.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
-	-	-	-	37,600	-
				37,600	
Grand Total					37,600
1967-1968					
-	-	-	-	3,900	-
				3,900	
Grand Total					3,900

ATLANTIC DEVELOPMENT BOARD

Capital Grants

One of the Board's functions is to assist the Atlantic provinces in providing capital facilities for applied research. Following consultation with the provincial governments, capital grants are made to provincial agencies for research on problems in the four Atlantic provinces. During the 1966-67, and 1967-68 fiscal years, the Nova Scotia Research Foundation received \$63,521 and \$743,422 respectively, and the New Brunswick Research and Productivity Council \$418,106 and \$997,946.

During the same fiscal years, the Board also authorized grants of \$2,000,000 to Dalhousie University towards the capital cost of an aquatron, and \$1,500,000 to the University of New Brunswick to aid in the cost of research buildings. An additional \$379,000 was authorized as a grant to the New Brunswick Research and Productivity Council. The Board did not make these grants during the two fiscal years covered by this survey.

The Board cooperates with a number of federal organizations in its activities because of

a mutual interest in the Atlantic area. They include the Departments of Energy, Mines and Resources; Fisheries; Forestry and Rural Development; Industry, and the National Energy Board.

Research Contracts

The Board engages academics to carry out research studies relating to economic and social aspects of the Atlantic region. This is described as "purchase of services", i.e., research is commissioned and designed to meet the requirements of the Board's Planning Division. Once the Division's program is established, individual agreements are negotiated and payment is made on a per diem basis at rates established by Treasury Board.

Amounts reported as expenditures during the two fiscal years concerned individual academics only. The universities with which they are affiliated have been noted on the tables.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
63,521 NSRF 418,106 NBRP	—	—	—	1,321 SGW 17,037 CALG 27,511 UNB 4,368 UNB 5,000 McG 5,853 McG 3,499 QU	—
481,627				64,589	
Grand Total					546,216

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
743,422 NSRF 997,946 NBRP	—	—	—	7,623 CALG 11,149 UNB 2,717 UNB 3,158 McG 29,590 UNB 5,000 UNB 5,000 UNB 4,000 MONT 5,000 DAL 10,969 UNB	—
1,741,368				84,206	
Grand Total					1,825,574

ATOMIC ENERGY CONTROL BOARD

Capital Grants

Under Section 8(e) of the agency's Act, the Board may

... without limiting the generality of any other provision of this Act, establish, through the National Research Council or otherwise, scholarships and grants-in-aid for research and investigations with respect to atomic energy, or for the education or training of persons to qualify them to engage in such research and investigation.

Under this provision, the Board has made annual grants set forth under the Act. These grants are planned and developed in close association with NRC. The decisions regarding grants are made by the Board, but NRC administers the program.

Grants to support the design, construction and purchase of atomic energy equipment for research purposes are made in the name of university staff members with the university concerned administering the funds. Grants to the University of British Columbia include provision for the tri-university Meson Facility Research Program which involves the University of Victoria and Simon Fraser University. A grant was also made for a joint program involving the University of Ottawa and Carleton University in 1967-68.

The 1967-68 expenditure of \$2,500,000 is an estimate.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
160,000 UA	—	—	—	—	—
414,400 UBC					
270,000 LAV					
250,000 UM					
200,000 McG					
69,000 QU					
431,000 US					
5,600 VICT					
200,000 McM					
2,000,000					
Grand Total					2,000,000
1967-1968					
254,000 UA	—	—	—	—	—
421,000 UBC					
362,000 LAV					
298,000 UM					
234,000 McG					
226,000 McM					
81,000 OTT-CARL					
120,000 QU					
481,000 US					
23,000 TO					
2,500,000 EST					
Grand Total					2,500,000

ATOMIC ENERGY OF CANADA LTD.

Awards

AECL reimburses the National Research Council for the cost of postdoctoral fellows who have been placed in AECL establishments. Expenditures are listed under the awards column. Postdoctoral fellows assigned to other federal organizations were paid for by NRC during the two fiscal years. This is noted in the text and table for NRC.

Research Contracts

As a matter of policy, AECL does not make awards or give grants-in-aid of research. The main facets of its cooperative program with the universities are carried out through research contracts on campuses as well as by university personnel at AECL.

Formal agreements are made with universities for research carried out under the direction of university faculty. These are based upon AECL's assessment of the projects' prospective value to its research and development program, and as such are akin to the Department of Agriculture's EMR program. Usually a research contract will be initiated by AECL with an approach to a university department to consider the possibilities of having its staff undertake the project. Similarly, university staff might approach AECL, suggest a certain line of research which would be of mutual interest and have a useful bearing on AECL's research and development program. Because it feels that coordination is desirable before approving a proposal to enter into a research contract with a university, a copy of the proposal with a

request for comments is sent by AECL to the NRC Awards Office.

There are two types of research contracts: contracts that are an extension of the company's research program; and those which AECL calls Commercial Products Research Contracts. In almost all instances, Commercial Products Research Contracts are agreements with universities, qualified private bodies, etc., to find commercial uses for the radio-active isotopes produced in the Chalk River reactors.

During 1966-67, research contracts arranged through the company or Commercial Products amounted to \$543,186, while in 1967-68, \$781,986 was spent. In the first instance the figures represent actual expenditures, while in 1967-68 the expenditures on contracts with private individuals and institutions are merely estimates.

Other Research Support

AECL encourages university personnel to make use of its research and development programs and facilities by spending summer months or sabbatical leaves at its sites in Chalk River, Ontario, or Pinawa, Manitoba. Similarly, graduate students are welcome to carry out research work for their degrees on AECL premises. Such employment enables the company to get a first hand assessment of future employees and allows students to acquaint themselves with the work and environment in such research and development centres. AECL also cooperates with NRC in offering opportunities to postdoctoral fellows.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	110,131	—	14,250 UA 22,920 UBC 25,625 UBC 4,799 EP 16,900 UM 18,450 UM 11,250 UM 9,750 UM 20,650 UM 2,150 UM 7,900 UM 6,625 McG 12,500 McG 12,305 McM 9,000 McM 3,630 OTT 14,062 OTT 510 QU 4,207 QU 2,375 US 28,500 US 8,950 US 4,775 US 3,500 SFU 20,500 TO 10,500 TO 3,625 TO 18,000 VICT 13,547 WAT 12,375 QU 4,750 WAT 12,400 WO 9,750 WO 26,229 WO commercial products: 5,389 GU 2,320 McG 9,100 McG 9,734 UM 1,500 UM 1,500 UM 3,000 UM 2,100 UM 3,750 UM 3,451 GU 7,697 ORF 6,080 McG 2,325 CARL 8,388 QU 5,162 WAT 8,299 ORF 66,132 PTE	—
		110,131		543,186	
Grand Total					653,317

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	119,216	—	4,750 UA 18,216 UA 20,000 UA 10,000 UBC 17,700 UBC 6,375 CALG 14,396 EP 4,800 LAV 6,150 UM 14,800 UM 5,900 UM 12,000 UM 5,000 UM 3,950 UM 3,150 UM 17,550 UM 20,850 UM 6,625 McG 12,500 McG 5,550 McG 3,605 McM 9,000 McM 6,200 OTT 14,000 OTT 12,621 QU 22,650 QU 1,100 QU 9,000 US 5,500 US 3,850 US 11,975 US 10,500 SFU 21,425 TO 31,500 TO 18,600 TO 9,925 WAT 14,250 WAT 8,500 WO 7,624 WO 20,800 WIND 66,025 others commercial products: 3,053 GU 6,600 McG 5,598 UM 2,755 GU 6,231 ORF 1,500 UM 2,350 UM 3,000 UM 2,100 UM 6,187 UM 2,800 UM 8,285 McG	—

RESEARCH EXPENDITURES (Conc.)
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
				2,475 CARL 6,151 QU 12,850 WAT 133,371 PTE 57,768 others	
		119,216		781,986 EST	
Grand Total					901,202

BANK OF CANADA

Research Contracts

In addition to an extensive 'in-house' economic and financial research program, the Bank employs academic researchers. The marked increase in the hiring of academics has been found useful because of the utilization of econometric models. During 1967, five university academics were engaged on a part-time basis as consultants.

Other Research Support

The Bank values its contacts with the academic community and makes its library facilities available to the university community to the greatest extent possible. Employees are allowed to work on doctoral dissertations during normal hours providing their subjects are related to research projects of interest to the Bank.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
-	-	-	-	22,580	-
				22,580	
Grand Total					22,580
1967-1968					
-	-	-	-	28,780	-
Grand Total					28,780

CANADA COUNCIL

By far the largest part of the Council's expenditures under its regular program of assistance to the social sciences and humanities goes towards financing doctoral fellowships and providing aid to career scholars. The latter take the form of research grants, postdoctoral fellowships and sabbatical fellowships. Other assistance includes grants for research collections and publications, and for the support of meetings and exchanges among scholars and other researchers.

Awards

Doctoral fellowships are available to Canadian citizens or residents in pursuit of a doctor's degree or the equivalent in the social sciences and humanities. The applicants must have no more than two years left to complete the university residence requirements for their program, or must have completed their university residence requirement and be engaged in the completion of their doctoral program.

The value of awards made varies from \$3,500 a year for students who are meeting their residence requirements to \$6,500 for a few top candidates among university teachers in Canadian universities who have completed their residence requirements. If the fellowships are required for a lesser period than a year, the above values are prorated accordingly. They are renewable for a maximum of four years of tenure, and for no more than two at the post-residence stage provided that certified reports of satisfactory progress are submitted. The awards are tenable in Canada or abroad and carry a travel allowance for the award-holders only.

Postdoctoral fellowships are available to Canadian scholars who have obtained their doctoral degree within the preceding five years and who wish to broaden their scholarly experience. The applicants may not yet have taken a permanent academic post or be planning to take leave of absence without salary.

The award is \$8,000 for a full year or proportionately less for a shorter period which must extend over at least eight months.

Leave or sabbatical fellowships are made available to staff members of Canadian universities and to other scholars who are engaged in independent research or some other form of creative scholarship while on leave of absence on partial or no salary.

The basic award for a full year is \$7,000 for those of at least associate professor rank and \$5,000 for others. A travel allowance may be added as well as another sum of up to \$1,000 to cover research expenses.

Research Grants

The Council awards grants to promote advanced research in the social sciences and the humanities, the term 'research' being taken to include all forms of scholarly inquiry and activities associated therewith. The Research Grants Program is designed primarily to meet the needs of career scholars in Canadian universities, but researchers not employed by a university may qualify if their applications meet the same standards of judgment as to scholarly merit. Applicants must apply for grants in their own names and not in the name of or on behalf of an institution. Contractual or commissioned research does not qualify for support. Nor are research grants given for work undertaken as part of the applicant's formal program of studies leading to a degree.

The range of research qualifying for support generally embraces the various branches of social sciences and humanities including interdisciplinary projects. It does not, however, include projects concerned essentially with improving professional practice, for example, in accountancy, law, library science, pedagogy, or social work. Costs relating to publications cannot be met under this program. Research grants intended to defray actual costs attributable to a project are subject to some limitation as to rates. No provision is made for the investigator's income nor for overhead costs of universities.

The amounts approved under the Research Grants Program vary from a few hundred dollars for minor works to tens of thousands of dollars for large research undertakings. The

disbursements authorized by the Council under this program totalled \$983,000 during 1966 - 67 and reached \$2,102,000 in 1967 - 68.

The Library Research Collections Program tries to deal with the present inadequacy of library collections in Canadian universities. Although the Council feels that the present inadequacy constitutes a problem for research in Canada, it was not able to devote more than \$500,000 in 1966-67 and \$1,003,000 in 1967-68 in an effort to improve the situation. As a result of limited funds the Council had to be highly selective, allocating the money that was available among those university departments already well engaged in research.

Other Research Support

The Canada Council assists learned journals in the social sciences and humanities. As a rule a journal must meet the specialized needs of a well-defined discipline. Applications are submitted by national learned societies on behalf of periodicals which they publish as their official journals.

The Council also assists in the publication of scholarly manuscripts through block grants made to the Humanities Research Council and the Social Sciences Research Council of Canada.

In special circumstances, the Council will also consider applications from scholars or publishers for direct grants in aid of publication of works which, for reasons other than worthiness, the research councils mentioned above are not able to assist.

In 1966 - 67, \$293,000 was made available for various types of publications; in 1967-68, the total was \$243,312.

The grants made under the Meetings and Exchanges Program are intended to supplement the research and publication work of social scientists by providing opportunities for the

exchange of ideas among scholars sharing common interests. Forms of assistance in this category are numerous and could be grouped as follows:

1. Travel grants to Canadian scholars to allow them to take part in international learned conferences on current research.
2. Block grants to the Humanities Research Council and the Social Science Research Council for assistance to scholars who want to attend the annual meetings of Canadian learned societies.
3. Assistance for occasional meetings and colloquia to encourage communication among scholars from various parts of Canada who share special interests.
4. Assistance to Canadian universities in bringing visiting scholars to their faculties. Nominees must be of outstanding calibre and are expected to stimulate scholarly activity in the universities visited.

Total expenditures under the Meetings and Exchanges Program amounted to \$147,000 in 1966 - 67 and rose to \$250,000 during 1967 - 68.

Requests not falling within any of the regular programs, but judged by the Council to be meritorious and consistent with its objectives, may be supported by special grants. An amount of \$51,000 was made available for this purpose in 1966 - 67 and \$97,000 in the following year.

The overall Canada Council program of assistance to the Social Sciences and Humanities, including fees paid for consultants in the administrative process, called for expenditures totalling \$5,581,000 during 1966 - 67. Total expenditures for 1967 - 68 climbed to \$11,324,000, a figure which is more than double the preceding year's disbursements. Monies spent under the Killam Program, which is administered by the Canada Council, are not included since the funds come from a private endowment.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	doctoral: 2,931,000 leave: 617,000	library research collections: 983,000 500,000	—	publications: 293,000 meetings - exchanges: 147,000 special awards: 51,000 consultants: 59,000
		3,548,000	1,483,000		550,000
Grand Total					5,581,000
1967-1968					
—	—	doctoral: 6,477,000 postdoctoral: 159,000 leave: 877,000	library research collections: 2,102,000 1,003,000	—	publications: 243,000 meetings - exchanges: 250,000 special awards: 97,000 consultants: 116,000
		7,513,000	3,105,000		706,000
Grand Total					11,324,000

CANADA EMERGENCY MEASURES ORGANIZATION

The Canada Emergency Measures Organization (EMO) was established as a planning and coordinating agency and, for the most part, restricts its expenditures to research contracts which are paid from a contingency fund. In 1967-68, however, two capital grants and one fellowship were awarded.

Capital Grants

There were two capital grants in 1967-68. McMaster received \$4,400 to acquire some Canada EMO research equipment. The University of Calgary also acquired research equipment from EMO at a cost of \$15,050.

Awards

To promote the study of the sociological effects of natural disasters, a \$5,000 graduate research fellowship at the Disaster Research

Centre, Ohio State University, is offered annually to a Canadian resident.

Research Grants

EMO made no research grants to any institution or agency in 1966-67. In the following year, a research grant of \$9,915 was awarded to Purdue University. This represents 7/24 of a \$34,000 contract-grant to be paid by the Department of Public Works in 1968-69.

Research Contracts

EMO also entered into research contracts with Canadian universities in 1966-67 at a total expenditure of \$47,121. During the following year, there was a considerable increase in the number of research contracts awarded to universities with expenditures totalling \$82,887.

RESEARCH EXPENDITURE in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	5,000	—	5,069 McG 12,763 McG 10,000 McG 8,681 McG 3,000 LAV 1,827 UA 5,781 McM	—
		5,000		47,121	
Grand Total					52,121
1967-1968					
4,400 McM 15,050 CALG	—	5,000	9,915 PU	4,211 McG 6,539 McG 10,000 McG 10,000 McG 6,600 CALG 27,771 McM 5,772 McM 11,994 TO	—
19,450		5,000	9,915	82,887	
Grand Total					117,252

CANADIAN NATIONAL RAILWAYS

Research Contracts

Canadian National operates on the calendar year, hence the figures tabulated are only estimates. They have been adjusted to comply with the fiscal year and could be read as expenditures within any 12 month period. In 1966 and 1967—note the calendar year breakdown, CN contracted with a university to study the effects of organization development on the Great Lakes region. This study was carried out in 1966 at a cost of \$11,700, while the 1967 cost was \$20,000. CN also paid \$4,000 in both years for consultations with professors on operations research projects.

research to develop a solids pipeline—the work is being carried out by the Alberta Research Council;

2. With the National Research Council on problems and developments associated with railway operations;
3. With the Forest Products Research Laboratory on problems concerning railway crossties and timber for structural purposes;
4. With the Department of Health and Welfare on air pollution problems and the safe handling of materials associated with atomic energy developments;
5. With the Department of Fisheries in a study dealing with the transport of perishable products;
6. With the Department of Agriculture in the transport of agricultural products, and in weed and brush control for railway right-of-way and other properties.

Other Research Support

The company is involved with a number of federal organizations. This miscellaneous involvement is

1. With a consortium of companies, including the Department of Industry, engaged in

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	11,700 4,000	—
				15,700	
Grand Total					15,700
1967-1968					
—	—	—	—	20,000 4,000	—
				24,000	
Grand Total					24,000

CANADIAN TRANSPORT COMMISSION

The Canadian Transport Commission did not become operative until the latter part of 1967. It is the successor to the Board of Transport Commissioners, the Air Transport Board and the Canadian Maritime Commission.

research consultants. One received \$8,300 in fees plus \$2,090 for travel expenses; the other received \$4,100 in fees and a \$187 travel allowance. Both studies concerned feasibility and finance.

Research Contracts

During 1966 - 67 the former Air Transport Board utilized the services of two private

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	10,390 PTE 4,287 PTE	—
				14,677	
Grand Total					14,677

CENTRAL MORTGAGE AND HOUSING CORP.

Part Five of the *National Housing Act, 1954* (sections 32 and 33) sets out a wide range of research, information and developmental activities for which funds can be used. Section 31, the preamble to Part Five, reads as follows:

It is the responsibility of the Corporation to cause investigations to be made into housing conditions and the adequacy of existing housing accommodation in Canada or in any part of Canada and to cause steps to be taken for the distribution of information leading to the construction or provision of more adequate and improved housing accommodation and the understanding and adoption of community plans in Canada.

It can be said that in one way or another some action has taken place along the wide front envisaged within the terms of these sections of the Act. There has, however, been concentrated effort in the fields of community planning, housing design, housing and urban affairs, and building technology. Within these areas there has been institutional support, training and education, and research and development. In addition, Part Five funds support research and information conducted within the Corporation and a series of urban renewal studies that are carried out jointly with municipalities. The amounts shown on the table for both fiscal years are estimates.

Awards

CMHC Fellowships are offered for full-time graduate study leading to masters or doctoral degrees. Each year approximately 50 new fellowships are made available for study at Canadian universities and ten fellowships for study elsewhere. Professional fields of study for which fellowships are tenable include: urban and regional planning; urban, civic and landscape design; housing; urban renewal; housing

design; community facilities planning; urban engineering; urban transportation; law of planning and development; urban administration and finance; real estate finance and management. Appropriate fields of study in the social and behavioural sciences include: urban economics, urban geography, urban sociology and anthropology, urban demography, local government, and regional science.

The table shows the estimated support in both years for doctoral studies only.

Research Grants

Research grants are made to qualified individuals other than enrolled students, and to organizations either for specific projects of investigation or for continuing programs. Studies done by individuals are normally carried out within universities or other public or private institutions where a suitable place to work can be provided and funds can be administered. Research grants may be used to cover salaries of researchers and assistants, costs of necessary travel, clerical services, data processing equipment, and the publication of research results.

Research support may be given to unusually well-qualified individuals who wish temporarily to detach themselves from their regular responsibilities either to undertake full-time study not necessarily leading to a degree, or to carry on personal research which is not part of a regular continuing program. One objective of this program is to provide assistance to persons of established reputation outside of universities, since opportunities are relatively rare for them to detach themselves from their regular duties.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	11,000	8,400 NST 17,500 UM 8,000 LAV 4,600 UBC 25,000 MONT 23,000 LAV 28,000 CARL 3,000 TO 12,000 TO 11,500 TO	—	—
		11,000	141,000 EST		
Grand Total					152,000
1967-1968					
—	—	76,000	2,750 MONT 7,200 UM 8,625 TO 97,100 UM 85,000 MONT 26,000 YORK 107,400 TO 14,140 MONT 25,000 MONT 96,000 WAT 5,000 UBC 7,200 MONT 10,000 McG 3,000 McG 20,000 UM 5,000 UBC	—	—
		76,000	519,415 EST		
Grand Total					595,415

CONSUMER AND CORPORATE AFFAIRS

Research Contracts

On December 21, 1967 the Department of Consumer and Corporate Affairs was officially established, succeeding the Department of the Registrar General. Since the former was a new department which began functioning in the autumn of 1966, expenditures relating to this survey were negligible prior to March 31, 1967.

In 1967 - 68 two contracts were awarded: one costing \$56,828 for a securities task force

under the direction of a University of Toronto academic; and another valued at \$152,400 for a task force on the Canadian Corporation Act under the direction of a UBC academic. Two private research contracts were also awarded: one for \$142,525 to the Canadian Committee on Mutual Funds and Investment, a committee established and jointly sponsored by the federal and provincial governments; and the second for \$7,000 commissioned a barrister to do specific research on corporation law and security regulations.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	—	56,828 TO 152,400 UBC 142,525 PTE 7,000 PTE	—
				358,753	
Grand Total					358,753

DOMINION BUREAU OF STATISTICS

Research Contracts

In 1966 - 67, 19 university professors, assistant professors, and other professional staff received \$49,430 to carry out research projects for the Bureau. During the subsequent fiscal year 14 university staff members were contracted to complete research projects at a cost of \$35,122.

Other Research Support

The Bureau makes a practice of hiring student and graduate assistants to undertake research projects in the summer months. In 1966 - 67, ten student assistants and 24 graduate assistants received \$14,929 and \$45,906 respectively. In the following year, 16 student assistants received \$23,607 while 28 graduate assistants were paid \$54,863.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	49,430	45,906 14,929
				49,430	60,835
Grand Total					110,265
1967-1968					
—	—	—	—	35,122	54,863 23,607
				35,122	78,470
Grand Total					113,592

DOMINION COAL BOARD

The Board is interested in supporting research at Canadian universities whenever an opportunity arises for effective cooperative action. This is achieved through contracts with such organizations as the Canadian Institute of Mining and Metallurgy (Coal Division), the Canadian Advisory Committee on Coal Research, and the Dominion-Provincial Conferences on coal. These organizations are comprised of people intimately associated with research in universities and industry. Research centres like the Mines Branch of the Department of Energy, Mines and Resources, and the Alberta Research Council also provide exposure to research in these subjects for summer students and temporary employees.

Under its founding Act, the Dominion Coal Board is required to promote and encourage research and development related to coal. Consequently, it has enlisted the aid of organizations that are ready and competent to undertake work of this nature.

Research Grant

For the fiscal years 1966 - 67 and 1967 - 68, the Board provided grants-in-aid of research and development to the University of Waterloo's Water Resources Research Institute where studies are being conducted on the use of coal for treating sewage and industrial wastes. Only partial support for this study came from the Board. Additional aid was provided by the Department of National Health and Welfare.

During 1966 - 67, a total of \$36,200 was expended of which \$2,700 went to the University of Waterloo; \$5,000 to the Research Council of Alberta for research concerning the

reactions of coal with active atomic species; \$4,000 to Canmore Mines Ltd. for research in the devolatilization of non-coking coal; and \$2,500 to Lethbridge Collieries Ltd. for research in the upgrading of fines from rotary hearth carbonizers.

In addition, \$22,000 was granted to the Department of Energy, Mines and Resources to cover a portion of the costs of a "desulphurization of coking coals and combustion of pulverized coals" research project.

In the following year, a total of \$47,700 was estimated for expenditure. Of this amount \$2,700 again went to Waterloo; \$5,000 to the Nova Scotia Research Foundation for research regarding the removal of sulphur and non-combustible materials from Nova Scotia coals; \$7,500 to the Research Council of Alberta to carry on the research of the previous fiscal year; \$5,000 to the Saskatchewan Research Council to study lignite as an energy source for a provincial industrial complex; \$1,600 for Canmore Mines Ltd. to carry on research of the previous fiscal year and, similarly, \$2,500 to Lethbridge Collieries Ltd. for continued research. Energy, Mines and Resources also received a \$23,400 grant towards their continuing project.

Other Research Support

In 1966 - 67 and 1967 - 68, \$13,800 and \$2,300 respectively was estimated for expenditure on consultations and special studies for improving metallurgical use of Cape Breton Coal, and a study of the costs of handling coal and fuel oil in industrial steam plants.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	2,700 WAT 5,000 ARC 4,000 PTE 2,500 PTE 22,000 EMR	—	13,800
			36,200		13,800
Grand Total					50,000
1967-1968					
—	—	—	2,700 WAT 5,000 NSRF 7,500 ARC 5,000 SRC 1,600 PTE 2,500 PTE 23,400 EMR	—	2,300 EST
			47,700		2,300
Grand Total					50,000

ECONOMIC COUNCIL OF CANADA

Research Contracts

The Economic Council is authorized to engage the services of 'outside' experts to advise and assist in the work of the Council. Temporary appointments may be made to the Economic Council's staff for up to two years, if special services are required. The results of studies carried out under contract may be published at the discretion of the Council and a considerable number have been published over the past few years. Graduate students are employed on a part-time basis by the Council although any academic credit which they might receive is incidental and does not concern the Council.

Contracts are mostly arranged with individuals—the contractee's institution is indicated on the table. In some contracts, a certain percentage (fee) has been charged by the

university for overhead, but this is not a uniform practice. Those on short term appointments work and collaborate closely with regular staff.

In addition to contracts awarded to university personnel, the Council has also arranged research contracts with professionals who have no affiliation with academic institutions. Generally, contracts include fees for the principal investigators, funds for assistants, travel expenses, computer time, books, and clerical services.

During 1966 - 67 and 1967 - 68, expenditures on such contracts amounted to \$140,043 and \$211,692, respectively. Since some contract periods covered two fiscal years, only the actual amounts expended in each year have been noted.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	2,800 WASH 3,000 COL 3,266 AMST 24,750 US 1,471 QU 7,700 LAV 2,650 UBC 6,700 QU 2,450 CARL 6,725 WO 2,343 UA 14,025 WO 16,200 WO 7,970 QU 3,626 MINN 5,000 PTE 17,800 PTE 11,567 PTE	—
				140,043	
Grand Total					140,043

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	—	18,300 McG 10,450 HARV 1,605 HARV 8,029 McG 5,000 US 16,750 RMC 15,950 CARL 10,040 TR 25,068 OTT 30,000 UM 12,200 UBC 15,000 WO 20,850 UA 3,500 PTE 13,750 PTE 5,200 PTE	—
				211,692	
Grand Total					211,692

ELDORADO MINING AND REFINING LTD. NORTHERN TRANSPORTATION COMPANY LTD.

Eldorado (now Eldorado Nuclear Ltd.) and Northern Transportation are headed by the same president and are, therefore, represented as one company in this survey. For several years now, Eldorado has given grants in support of research with the aim of improving uranium processing and the training of people in uranium technology.

between the universities and the Company. Six grants were awarded to three universities at a cost of \$77,360 in 1966-67. In addition, a \$7,000 grant was made by Northern Transportation to the Arctic Institute of North America. In the following year, grants totalling \$45,000 were awarded to three universities by Eldorado in aid of studies pertaining to uranium compounds and liquid-liquid extractions.

Research Grants

Initiation of research projects is arranged through personal contact or correspondence

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966 - 1967					
—	—	—	29,300 QU 25,000 UBC 3,000 UBC 10,060 McG 10,000 McG 7,000 AINA	—	—
			84,360		
Grand Total					84,360
1967 - 1968					
—	—	—	20,000 QU 15,000 UBC 10,000 McG	—	—
			45,000		
Grand Total					45,000

ENERGY, MINES AND RESOURCES

The Department of Energy, Mines and Resources contributes to the support of research in universities in several ways. As a major employer of scientific and technical personnel, the Department has a strong interest in the development of research facilities in the universities. It is expected that its contributions will increase substantially in the coming years.

Research Grants

Each of the research branches now includes in its budget an item for support of research in universities. While in most cases these represent a small percentage of the total budget, they are being increased as the limitations upon operational budgets permit.

Six National Advisory Committees representing industry, universities, and federal agencies involved in research relating to the activities of this Department, advise the Directors of the operating branches of national requirements and assist in establishing priorities within this context. These committees review the requests by universities for research grants and advise the Department on the allocation of funds for this purpose.

In 1966-67, research grants totalling \$333,797 were distributed by the Department while in 1967-68 the expenditure was \$517,167.

Research Contracts

The awarding of research contracts to universities is of recent origin. During the period under review such contracts were used exclusively for research in hydrology. Expenditures for the two years were \$75,341 and \$109,248 respectively.

Other Research Support

The Department supports the research of several professors each year by employing them during the summers or, occasionally, on sabbatical leave. Approximately eight man-years per annum are used in this way and since the cost to the Department of supporting one professor is estimated at \$30,000 per year, the

total annual contribution would be in the order of \$240,000.

Professors who do not become employees of the Department may join field parties or make use of the special facilities and laboratories of various branches. In some cases, they receive logistic support for research programs which they could not otherwise afford. Included in this category are items such as accommodation on the research vessels of the Marine Sciences Branch, or transportation in aircraft provided by departmental field parties. In some cases, a ship or similar unit is assigned outright to a professor and his party for specific field research.

Based on maintenance and operating costs excluding interest or amortization of capital investment, ship time provided to universities amounted to \$177,000 and \$272,000 respectively for the two years under review. These figures do not necessarily represent net cost to the Department since in some cases facilities were shared and in others university personnel were accommodated at the convenience of the Department. The figures do, in fact, represent the shared costs of facilities prorated on the basis of utilization.

Precise figures are not available for other facilities used by universities, but these are estimated at no less than \$250,000 per year. An increase in this type of assistance is expected as the new Canada Centre for Inland Waters is developed at Burlington, Ontario. Provision has been made for university staff members and students to use the Centre's facilities and equipment in their research programs.

Each year, the Department employs several hundred students during the summer. In 1967-68, 834 positions were allocated for this purpose. Students are employed in all phases of scientific and technical work including field, laboratory, and theoretical tasks. Some of these students, as well as others not employed by the Department, obtain thesis problems and data which they use for their training. In this way, the Department maintains productive contact with many of the universities and stimulates the interest of students who later become active earth scientists.

Students average \$1200 each from their summer employment. The total value of additional benefits including living costs for field parties is worth at least as much or more, so that total support per student is in the order of \$2,500. Total assistance to students is, thus, some \$2,000,000 per year.

Libraries, special equipment, computer services, and staff advice are available to students for work that is of interest to the Department. No dollar amount has been estimated for assistance of this type.

Since joining the Government, at least 115 members of the Department's professional staff have given or are giving instruction in universities and colleges across the country. In some instances they are supervising graduate

students. Some of the scientific professional staff are leaders in their respective fields and contribute significantly to universities by teaching, usually on a voluntary basis. These activities are accepted as a legitimate extension of the Department's interests provided that the discharge of primary responsibilities is not interfered with. The universities benefit from such an arrangement since they are able to extend their range of courses and, accordingly, attract students. The Department benefits through close association with both the faculty and the students who in turn become interested in the activities of the Department. Students benefit from the extension of their educational opportunities through direct contact with leaders of research in non-academic circles. No dollar value has been assigned to this type of assistance to the universities.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
-	-	-	geology: 13,500 TO 6,000 WAT 12,700 WO 13,450 UA 3,550 UBC 5,000 CALG 6,100 CARL 7,197 DAL 8,000 EP 4,050 LAV 6,800 MONT 13,500 McG 10,400 McM 5,000 MEM 5,187 MONT 8,240 UNB 6,810 OTT 9,513 QU 1,800 StFX 2,000 US 148,797	7,500 TO 40,000 TO 682 US 21,034 US 6,125 UA	student associates: 2,000,000 research facilities: 250,000 ship time: 177,000 professors part-time: 240,000
			astronomy: 2,050 UBC 500 CALG 1,500 YORK 2,900 TO 1,800 WAT 1,250 WO 10,000		

RESEARCH EXPENDITURES (Conc.)

in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
			survey and mapping: 3,000 TO 3,000 UNB <u>6,000 US</u> 12,000 mining: 600 TO 3,000 UA 4,500 UBC 4,000 EP 8,000 LAV 17,000 McG 3,500 McM 2,000 UNB 22,900 QU <u>6,700 US</u> 72,200 mineral processing: 3,000 UA 3,000 UBC 3,500 EP 3,650 LAV 1,450 McG 6,200 QU <u>7,000 WAT</u> 27,800 geography: 1,400 UA 500 BISH 4,955 UBC 500 CARL 1,000 LAV 1,650 McG 2,745 McM 6,200 MONT 2,000 SHER 2,000 TO 800 WO <u>1,250 YORK</u> 25,000 hydrology: 38,000 UM		
			333,797	75,341	2,667,000 EST
Grand Total 3,076,138					

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	geology: 9,110 UBC 20,020 UA 5,660 CALG 10,160 US 7,880 MONT 10,780 CARL 17,340 McM 8,280 OTT 14,610 QU 22,800 TO 6,400 WAT 3,460 WO 600 GU 3,520 EP 2,800 LAV 9,800 McG 8,520 UNB 9,480 PTE 6,620 DAL 1,500 NST 5,660 MEM <u>185,000</u> survey and mapping: 2,000 US 3,600 TO 5,600 LAV 8,800 UNB <u>20,000</u> mining: 13,000 UBC 5,500 UA 5,800 US 2,000 McM 10,900 QU 1,500 CARL 5,500 LAV 16,500 McG 2,500 UNB 3,000 NST 3,800 EP <u>70,000</u> mineral processing: 6,000 UBC 2,500 UA 6,500 WAT 6,000 QU 2,500 McG 3,500 LAV 3,000 EP <u>30,000</u>	22,500 TO 11,880 US 8,446 US 56,876 US 3,363 UA 1,308 UA 4,875 UA	student associates: 2,000,000 research facilities: 250,000 professors part-time: 240,000 ship time: 272,000

RESEARCH EXPENDITURES (Conc.)
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
			geography: 2,950 UBC 4,250 CALG 800 MONT 2,800 BRO 1,200 CARL 2,860 McM 3,320 TO 3,200 WLU 1,700 WO 4,470 LAV 3,850 MONT 2,000 McG 1,600 MEM <hr/> 35,000 astronomy: 6,000 UBC 1,000 UA 5,000 US 5,000 WO 2,000 WAT 1,000 YORK 5,000 LAV <hr/> 25,000 hydrology: 5,500 UBC 40,000 MONT 49,300 WAT 5,000 WO 13,800 GU 20,117 TO 5,550 MONT 12,900 UNB <hr/> 152,167		
			517,167	109,248	2,762,000 EST
Grand Total					3,388,415

EXTERNAL AFFAIRS

Awards

In general, the Department of External Affairs acts as the agent of the Canadian Government in negotiating agreements with other countries and as a policy adviser in implementing them rather than as an administrator. The Department does not pay student fees directly nor does it make financial grants to individual universities.

In the case of exchanges with six European countries (France, Belgium, Switzerland, Italy, Germany and the Netherlands), disbursements appear in External Affairs' accounts because of the particular role of the Department in controlling the implementation of the program but the administration lies in the hands of the Canada Council.

The External Aid Office is financially responsible for all Canadian expenses in the Commonwealth Scholarship and Fellowship Plan. The Association of Universities and

Colleges of Canada, with which the Department maintains liaison, administers the Plan.

The amounts indicated are divided into four areas: awards, travel expenditures, university fees, and medical expenses. The expenditures result from the program of cultural relations with European countries mentioned above, and are for persons engaged in doctoral or post-doctoral studies. For the fiscal year 1966-67, there was a total expenditure of \$532,592. In the following fiscal year, a total of \$567,739 was expended.

Research Contracts

For the fiscal year 1966-67, the total estimated expenditure was \$65,820 of which \$34,820 was contracted out to graduate assistants and \$31,000 expended for assistants. No further breakdown is available. In the following fiscal year, a total of \$21,765 was allotted for research contracts. Of this amount, \$17,335 was for contracts with seven academics. An additional study by a member of the Canadian Teachers' Federation cost an extra \$4,430.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	awards: 423,261 travel: 62,351 fees: 33,989 medical expenses: 12,991	—	34,820 EST 31,000	—
		532,592		65,820	
Grand Total					598,412

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	awards: 469,041	—	17,335	—
		travel: 46,157		4,430	
		fees: 41,091			
		medical expenses: 11,450			
		567,739		21,765	
Grand Total					589,504

EXTERNAL AID OFFICE

The Government of Canada's participation in international development and provision of assistance to developing countries is channelled, for the most part, through the External Aid Office (now Canadian International Development Agency). Both capital and technical assistance is extended to the French and English speaking countries of south and southeast Asia (Colombo Plan — CP) and Africa (Special Commonwealth Africa Aid Program — SCAAP, Independent French Speaking African States — IFSAS), as well as to the Common-

wealth countries of the Caribbean (Commonwealth Caribbean Assistance Program — CCAP).

Awards

Under the aforementioned programs, funds are provided for research study to trainees in Canada in three categories: trainees studying for doctoral degrees, trainees pursuing postdoctoral studies, and all other trainees pursuing courses of study or training deemed to be research or research oriented.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	doctoral: 716,885	—	—	—
		post-doctoral: 28,703			
		other: 464,251			
		1,209,839			
Grand Total					1,209,839
1967-1968					
—	—	doctoral: 808,304	—	—	—
		post-doctoral: 45,121			
		other: 590,026			
		1,443,451			
Grand Total					1,443,451

FINANCE

Research Contracts

The Department of Finance did not provide a breakdown of individual contracts or consul-

tations, but merely provided an aggregate total for expenditures involving academics and other professional researchers during the two fiscal years.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
-	-	-	-	98,000 EST	-
				98,000	
Grand Total					98,000
1967-1968					
-	-	-	-	130,000 EST	-
				130,000	
Grand Total					130,000

FISHERIES

Research Contracts

Contract-grants, as the Department calls its research contracts, are similar to the extra-mural research grant-contracts of the Canada Department of Agriculture. This support takes the form of a contract because it is an extension of 'in-house' research programs. The Department's research programs are carried out by staff economists and scientists as well as those from other federal and provincial agencies.

Two of the Department's contracts involved MA economics candidates at Dalhousie and

UBC. Fulfillment of the contracts was contingent upon acceptability of the MA dissertation by each university. The Dalhousie student received \$5,000 in each of the two years and the UBC student \$5,000 for 1967 - 68. Other contract-grants were \$5,000 with Memorial University, \$4,562 for a Dalhousie academic, and \$3,093 for a University of Alberta academic. The latter amount was funded by the Northwest Territories Council and paid the professor's fees and expenses.

In 1967 - 68, expenditures dropped slightly to \$15,418, being composed of the same contractees excluding Memorial University. All these projects were of an economic nature.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	5,000 DAL 5,000 MEM 4,562 DAL 3,093 UA	—
				17,655	
Grand Total					17,655
1967-1968					
				5,000 DAL 5,000 UBC 4,500 DAL 918 UA	
—	—	—	—	15,418	—
Grand Total					15,418

FISHERIES RESEARCH BOARD OF CANADA

In addition to its own research programs and support of its establishments, the Board also provides grants and facilities to academic scientists. Special arrangements exist between the Fisheries Research Board (FRB) and the universities of British Columbia, Manitoba, Toronto, Dalhousie, and Memorial University, since these institutions or their academics receive the major share of the Board's grants.

By strengthening its association with universities, the Board anticipates an increase in the supply of qualified graduate students oriented to Fisheries Research, and an increase of active research in areas of interest to the Board. It is hoped that direct cooperation on research projects between the Board, university staff, and students will continue.

Operating Grants

The Board considers development grants to be of prime importance. These grants are intended to establish new areas of research or to expand existing programs. The scope of the assistance provided is decided by discussions between individual universities and Board representatives. Submissions may be made in the manner thought to be most appropriate by the university department applying.

Of the \$101,940 expended in 1966-67, \$46,000 went to UBC as a development grant; another grant of \$55,940 was awarded to the Zoology Department, University of Manitoba. In 1967-68, a total of \$238,740 was awarded. Memorial University received \$57,740, the University of Manitoba \$82,000 for the support

of an aquatic research unit, the University of British Columbia \$49,000, and the Institute of Oceanography, Dalhousie University, \$50,000.

Research Grants

Grant applications are judged by an FRB committee with majority representation by university scientists. Some academics also receive research grants to financially support their masters or doctoral students. During 1966-67, \$148,060 was granted for 26 projects at 11 universities. In the following fiscal year, grants totalling \$160,760 were awarded for 30 projects at 11 universities. All projects pertained to research in marine and aquatic sciences.

Research Contracts

Contracts are initiated by directors to inaugurate research in areas where these establishments are unable to carry out such work. Some of these contracts are made with universities or university personnel.

Other Research Support

The only item was a \$500 grant to a University of Toronto academic in 1967-68 for the support of the Canadian Committee on Freshwater Fisheries Research.

In resource science, non-financial assistance is often as valuable as the cash part of a grant. Hence, proximity to an FRB establishment and intent to share the use of manpower and facilities may be a determining factor in granting awards.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	46,000 UBC 55,940 UM	—	3,500 GU 3,500 UBC 4,000 UBC 10,000 UBC 5,000 UBC 4,000 UBC 4,000 UBC 3,130 UBC 6,000 TO 26,000 TO 6,250 TO 4,000 TO 5,000 TO 4,000 TO 5,500 TO 2,500 McG 3,000 McG 3,500 UNB 2,450 AC 3,030 QU 5,000 CARL 3,700 McG 3,000 GU 15,000 MEM 10,000 McG 3,000 DAL	10,000 UNB 20,000 TO	—
	101,940		148,060	30,000	
Grand Total					280,000

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	57,740 MEM 82,000 UM 49,000 UBC 50,000 DAL	—	3,000 DAL 1,200 DAL 2,500 DAL 7,000 MEM 100 AC 3,500 OTT 2,400 VICT 5,000 CARL 10,000 McG 3,000 UNB 3,000 UNB 2,700 McG 3,000 McG 2,000 McG 26,000 TO 5,000 TO 6,660 TO 5,500 TO 6,500 TO 5,000 TO 10,000 TO 3,000 GU 3,500 GU 7,000 UBC 4,000 UBC 7,600 UBC 6,000 UBC 7,600 UBC 4,000 UBC 5,000 UBC	3,000 TO 23,000 TO 2,250 McG 10,000 UBC	500 TO
	238,740		160,760	38,250	500
Grand Total 438,250					

FORESTRY AND RURAL DEVELOPMENT

FORESTRY BRANCH

The Forestry Branch is interested in furthering the acquisition of scientific knowledge to apply in solving problems related to forestry in Canada. Under the provisions of the *Department of Forestry Act, 1960* the Branch is responsible for conducting research related to the protection, management, and utilization of forest resources and for the development and improvement of forest products. Subsidiary objectives include development and support in the scientific community of an interest in forestry sciences that will have a potential value for the long-term development of forestry in Canada. This program is also intended to assist in staffing the Department with promising young scientists.¹

Operating Grants

In 1967, the Branch inaugurated a system of direct grants to faculties of forestry to enable them to increase their research work and post-graduate training. A total of \$40,000 was granted to each of the forestry faculties at the universities of New Brunswick, Laval, Toronto and British Columbia. Each faculty was also asked to identify its interests and areas of strength. The Branch awards grants to enable faculties to pursue their desired specialities, but attempts to avoid duplication wherever possible. This is achieved by consultation between the faculties and the Branch. Direct grants to faculties will be increased substantially during the next few years. The faculties involved anticipate that they will be able to offer facilities to Canadian forestry students seeking doctoral training in Canada.

Awards

The Branch, in cooperation with the National Research Council of Canada, offers a number of postdoctorate fellowships for research in forestry sciences. These are tenable in the Branch's research laboratories although recipients work there as NRC fellows.

Research Grants

As noted in the *Extra-Mural Research Grants Manual*, grants are awarded subject to appropriation of funds by Parliament and are normally made "to aid that research which, in the opinion of the Department of Forestry, is related to problems in managing Canada's forests or utilization of Canadian forest products". These grants are made to individual staff members of Canadian universities and colleges or research institutes. Grants are awarded for specific research projects and are administered through the business or comptroller's office of the grantee's institution. Project assistants receive payment but full-time members of the institution do not. Nevertheless, the grantee may employ graduate or under graduate students to assist him.

During the period under review, extra-mural research grants increased from \$88,740 to \$179,200, reflecting the desire of the Branch to involve a large number of university scientists in research programs of interest to forestry.

Research Contracts

During the 1966 - 67 fiscal year, the Branch spent approximately \$7,000 on research consultants. No amount was reported for the 1967 - 68 fiscal year.

Other Research Support

As with the Canada Department of Agriculture, 'in-house' research is another major expenditure that bears directly upon relationships with universities. The research laboratories on university campuses provide facilities that may be used by university personnel, including graduate students. No specific monetary figures are available for the value of such services; nevertheless, they are undoubtedly significant. Forestry personnel are also engaged to some extent in teaching and supervising graduate students. In fulfilling requests to provide a graduate course, prior approval of headquarters is required to ensure that there is no conflict between the officer's departmental responsibilities and his interests with the university. The Branch is also prepared to carry out research on university forest properties and provides advisory and consultative services.

¹*Extra-Mural Research Grants Manual*, Dept. of Forestry, Ottawa, 1966.

The Branch fully intends to increase its volume and interest in forestry sciences re-granting programs in forthcoming years as the search continues.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	9,000 SFU 7,700 TO 5,500 McM 9,000 McG 7,000 McG 4,500 LAV 13,400 UNB 4,500 UM 9,640 UA 4,000 VICT 5,500 GU 4,000 US 5,000 QU	7,000	—
			88,740	7,000	
Grand Total					95,740
1967-1968					
—	40,000 UNB 40,000 LAV 40,000 TO 40,000 UBC	—	13,450 NST 29,650 UNB 14,000 McG 16,000 McG 9,900 LAV 10,700 TO 14,800 QU 5,000 WAT 5,500 GU 3,200 YORK 5,000 ORF 3,400 UM 4,000 US 4,750 CALG 14,350 UA 12,500 UBC 4,000 VICT 9,000 SFU	—	—
	160,000		179,200		
Grand Total					339,200

RURAL DEVELOPMENT BRANCH

The Rural Development Branch administers the *Agricultural and Rural Development Act* (ARDA), the *Fund for Rural Economic Development Act* (Fred), and the *Maritime Marshland Rehabilitation Act* (MMRA). Research, carried out under the ARDA Act, represents a small amount of the total funds available under the Act and the agreements related thereto.

The work of the Canada Land Inventory includes a major portion of the Branch's research. Data is compiled largely by personnel from provincial and federal government agencies with some assistance from universities. The total cost of the Inventory was originally estimated at approximately \$18,000,000. Other research undertaken includes the study and evaluation of resources and their capabilities, socio-economic renewal of certain geographical areas, and feasibility studies.

Research Contracts

In 1966-67, a total of \$160,643 was expended on contracts with university affiliated

researchers. The following year a total of \$175,914 was expended up to February 29, 1968. It should be noted that the UNB contracts for the two years were sponsored by the government of Prince Edward Island.

The Rural Development Branch has paid the full cost of the Canada Land Inventory which is being compiled by university academics and government personnel from provincial and federal agencies. Expenditures were made for development studies and mapping of land related to the physical capability for agriculture, recreation, forestry, and wildlife.

Canada Land Inventory contracts with private firms and individuals were carried out during both fiscal years as well. Included were development studies regarding land planning, resettlement and feasibility projects which in some instances were let as subcontracts to academics. Contracts with federal and provincial departments and agencies have been included on the table with the private contracts and consultations

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	4,453 UNB 16,850 StFX 6,400 StFX 25,767 McG 23,867 US 48,539 UA 12,247 MONT 1,400 BRO 5,524 UA 5,127 ISU 1,874 MONC 650 StFX 485 CALG 7,460 US <hr/> 160,643 Canada Land Inventory: 18,392 NFLD 7,332 NS 5,000 NS 3,000 NS 4,127 NS 308 NS 12,339 NS 7,040 NS 2,000 NB 94,262 NB 27,428 ONT 98,037 ONT 25,271 MAN 87,419 MAN 17,183 MAN 4,353 SASK 9,220 SASK 10,754 SASK 14,035 SASK 5,625 SASK 38,254 ALTA 27,800 ALTA 29,346 ALTA 88,007 BC 14,246 BC 123,843 BC 139,070 BC 83,057 BC 19,958 BC <hr/> 1,016,706	—

RESEARCH EXPENDITURES (Cont.)

in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
				individuals and associations: 31,218 132 20,000 852 39,600 1,669 5,682 3,000 833 13,981 3,500 283 3,097 27,000 APEC 10,000 CCS 582 ATA 440 IBM government organizations: 95,888 NFB 48,586 NFB 15,166 AG	
				1,498,858	
Grand Total					1,498,858

1967-1968

-	-	-	-	825 UNB 3,600 StFX 61,625 McG 589 US 5,200 US 23,290 US 31,737 UA 9,741 MONT 15,323 UA 5,405 McM 3,520 GU 7,000 SFU 2,563 McG 5,496 CARL <hr/> 175,914	-
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RESEARCH EXPENDITURES (Conc.)

in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
				Canada Land Inventory: 3,809 NS 7,889 NS 2,700 NS 20,701 NS 6,956 NS 20,904 NB 83,271 ONT 37,263 ONT 24,157 ONT 84,258 ONT 171,219 ONT 196,325 MAN 12,835 MAN 15,357 SASK 26,030 SASK 24,400 SASK 10,496 SASK 12,124 ALTA 18,505 ALTA 45,066 ALTA 18,506 ALTA 82,734 BC 17,320 BC 123,974 BC 100,460 BC 93,950 BC 1,261,209 individuals and associations: 9,425 24,687 123,180 3,229 3,980 11,431 3,498 7,729 69,448 4,653 900 5,918 2,770 2,400 1,540 5,440 750 1,849 500 3,381 5,533 3,000 CRM 33,169 ATA	
				1,735,533	
Grand Total					1,735,533

INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

Since expenditures on research vary substantially between the Department's branches and divisions, each will be treated separately. At the conclusion, there is a summary table for the Department as a whole.

INDIAN AFFAIRS BRANCH

As this branch has no research grants program, research assistance is contracted on an ad hoc basis. This procedure is in the process of being changed. An increasing number of suggestions are being received from academic sources. These are reviewed by a research committee which in turn reports to the Director

of Policy and Planning. The Branch sees a need for project studies. These will deal with subjects selected by an advisory committee and will be conducted by departmental employees on educational leave.

Research Contracts

In 1966 - 67, \$55,350 was expended on various studies dealing with Indian problems. Contract expenditures were divided between three institutions and one individual. In 1967 - 68, seven contracts were issued on an ad hoc basis for total payments of \$41,200. One was with an academic while the other six were with the universities noted on the table.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	38,455 UBC 3,000 UBC 1,500 CARL 4,800 LAV 4,995 LAV 2,600 PTE	—
				55,350	
Grand Total					55,350
1967-1968					
—	—	—	—	2,000 TO 12,000 UBC 4,900 WAT 1,500 UBC 4,900 UBC 14,000 UBC 1,900 PTE	—
				41,200	
Grand Total					41,200

NORTHERN ADMINISTRATION
Education Division

The Education Division supervises the expenditures made on education in the Northwest Territories; however, little research was carried out or supported by the Division in the period under review.

Research Contracts

A contribution of \$1,000 was made in 1967 - 68 to a study by a Dalhousie University anthropologist on the relocation of Eskimos to centres of employment. This study was organized by the Northern Science Research Group.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
-	-	-	-	1,000 DAL	-
				1,000	
Grand Total					1,000

NATIONAL AND HISTORIC PARKS BRANCH

Research projects in the National and Historic Parks Branch fall mainly within the terms of reference of the Research Division of the National Historic Sites Service; the Park Research Section of the National Parks Service, Planning Division; and the Interpretation Section of the National Parks Service, Operations Division.

To date, research involving university personnel supported by the National Parks Service has emphasized applied rather than pure scientific research and has been carried out on the basis of need.

Research Contracts

Contracts for parks' studies were let with private consulting firms. One out of 17 master plans is being done under contract with university staff, as is 50 per cent of the recreation-demand study work and about five per cent of the visitor-use and campground studies.

In 1966 - 67, \$32,067 was expended on contract work. Of this amount, \$14,400 was for contract employment of university staff members on special projects; \$900 for geological research by a University of Ottawa academic; \$500 for an ecology study by the University of Saskatchewan; \$10,000 for a recreation demand study by a staff member of George Washington University; and, \$3,000 to a McMaster University academic for spelaeologi-

cal research. The remaining amount was expended on graduate and undergraduate students under contract for summer research.

Expenditures on research contracts for 1967 - 68 were \$39,805. Four contracts amounting to \$31,560 were negotiated with university academics as follows: \$2,000 for a UBC study on vegetation in camp grounds; \$12,000 for a Michigan State University park master plan; \$1,500 for recreational data; an additional \$3,160 for the McMaster academic; and, \$12,900 for archaeological research in Waterton Lakes National Park by the University of Calgary. The remainder of the expenditures for 1967 - 68 went toward contracts for summer research.

Awards

The National Parks Service Scholarship Program initiated in 1966 offers 18 scholarships of \$2,000 each annually. These are offered to Canadian citizens for graduate studies at Canadian universities in fields related to the planning and management of national parks. Of the awards begun in 1967 - 68, two were granted to doctoral candidates at the University of Western Ontario.

National Parks Service is limited in its aid to research because of the lack of university courses offered in recreation. The scholarship program and research contracts are offered in the hope of stimulating research in the outdoor recreation and park planning fields.

RESEARCH EXPENDITURES
in dollar

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
-	-	-	-	900 OTT 500 US 10,000 GWU 3,000 McM summer research: 17,667 (10)*	-
				32,067	
*No. of contracts.				Grand Total	32,067

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	scholarships: 2,000 2,000	—	2,000 UBC 12,000 MSU 1,500 WAT 3,160 McM 12,900 CALG summer research: 8,245 (7)*	—
		4,000		39,805	
*No. of contracts.				Grand Total	43,805

NATIONAL HISTORIC SITES SERVICE

The National Historic Sites Service is involved to a limited extent in three areas of research: the National Architectural Inventory; archaeological; and, historical research.

One of the major functions of the National Historic Sites Service is the compilation of a national architectural inventory to serve as a permanent record of the country's architectural past and to assist in the future restoration of buildings of historical and architectural significance.

Contracts for work in this field have been arranged both with individuals, usually architects but occasionally historians, who carry out documentary research on the buildings being studied, and universities through their schools of architecture. The university contracts serve a double purpose. While the Inventory Program is being completed, university students working on the study obtain experience essential to the continuation of their architectural studies.

The initial phase of the Architectural Inventory consists primarily of surveys of areas for general architectural value. Subsequently, examination of selected structures calls for reporting photographic work. In addition to this, in the Maritime Provinces, detailed surveys have been conducted on 18th and 19th century buildings and villas.

In 1966 - 67, a total of \$17,157 was spent. Of this, \$10,657 was paid to four individuals to cover the cost of 22 different contracts. The remaining \$6,500 was divided among four contracts awarded to the universities of Laval, Montreal, McGill and Toronto. The same

amount was paid to these four universities in 1967 - 68, but there was a decrease in the amount paid to individuals. In that year, 24 contracts were awarded to 11 persons for a total of \$8,282.

Although the Sites Service conducts some of its own archaeological research, it uses the resources of the academic community to a great extent. In 1966 - 67, the universities of Calgary, Manitoba, and Toronto or their academics were paid a total of \$80,150 for archaeological work. In addition, contracts were awarded to four academics totalling \$57,570. Expenditures decreased in 1967 - 68. A total of \$30,750 was paid in contracts to academics at the universities of Calgary, Manitoba, and Trent. Three contracts totalling \$7,100 were arranged with academics one of whom was with William and Mary College.

To supplement the work done by permanent staff members, some of the Service's historical research work is contracted out. Generally speaking, historical research assists the Historical Sites and Monuments Board of Canada in making recommendations for the development of new historic parks and sites as well as for the extension of work at established sites. In 1966 - 67, eight contract researchers were hired at a total expenditure of \$14,500. In addition, a contract was awarded to an academic at L'École Polytechnique of Montreal in the amount of \$15,500 for research in connection with the specifications for and supervision of the construction of *La Grande Hermine*, a full-scale reproduction of Jacques Cartier's ship. The following year 15 research historians were put under contract at a total expenditure of \$28,500.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	architectural: 10,657 PTE-22* 2,000 LAV 1,500 MONT 1,500 McG 1,500 TO historical: 14,500 (8)* 15,500 EP archaeology: 9,000 CALG 2,300 CALG 23,850 UM 31,000 UM 5,000 TO 9,000 TO 25,370 USF 24,200 SMU 600 TR 7,400 PTE	—
				184,877	
Grand Total					184,877
1967-1968					
—	—	—	—	architectural: 8,282 PTE-24 2,000 LAV 1,500 McG 1,500 MONT 1,500 TO historical: 28,500 (15) archaeology: 2,750 UM 2,500 UM 1,300 PTE 3,000 WM 2,800 PTE 7,500 TR 3,600 CALG 17,400 UM	—
				81,132	
Grand Total					81,132
*No. of contracts.				Grand Total	81,132

CANADIAN WILDLIFE SERVICE

The Wildlife Service is responsible for matters related to migratory birds, wildlife in the national parks, and species threatened by extinction. All other wildlife is under provincial jurisdiction. The federal government, through the Wildlife Service, assumes responsibility for improving the supply of wildlife biologists. As a means of achieving this end, awards and research contract programs have been instituted.

Research Contracts

Contract agreements are with universities or with individuals affiliated with universities. A principal investigator is named in each contract. In some contracts, additional funds are made available for overhead costs. Proposals may be

initiated by either the Wildlife Service or university scientists.

In 1966 - 67, \$86,748 was awarded to 32 universities or individuals associated with universities in order to promote a wide range of research concerned with wildlife. In 1967 - 68, the program was extended to 51 contracts at a total cost of \$150,112.

Awards

Scholarships are intended to interest students in graduate work related to wildlife problems and thereby increase the number of wildlife scientists. During 1966 - 67, four scholarships valued at \$1,200 each were awarded to doctoral candidates. Ten scholarships amounting to \$10,800 were awarded for doctoral studies in 1967 - 68.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	doctoral: 4,800 (4)*	—	64 UTA 4,000 US 1,000 US 2,450 YORK 2,000 NW 4,080 YORK 1,000 UA 2,000 UA 1,800 OTT 2,400 MEM 1,500 UA 2,400 US 267 UBC 525 StDU 1,000 McM 2,000 JH 25,000 GU 2,000 UA 203 US 1,050 US 100 US 297 US 1,000 US 200 UTA 2,400 McG 2,000 LAV 5,000 WO 3,000 CARL 900 MEM 2,500 OTT 612 UNB 12,000 TO	—
		4,800		86,748	

*No. of awards.

Grand Total 91,548

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	doctoral: 10,800 (10)*	—	155 UA 1,400 UA 120 UA 300 US 82 UA 390 UA 325 UA 720 UA 200 UA 1,500 UA 3,700 SFU 920 US 4,500 LAV 17,900 TO 12,000 WO 700 MTA 3,350 MTA 2,000 TO 3,000 CARL 1,075 MEM 5,000 GU 4,500 OTT 1,550 AC 9,250 CALG 700 OTT 675 GU 5,000 GU 925 UBC 2,500 NW 550 NW 250 UA 3,100 US 1,000 UBC 5,000 McG 855 CARL 1,600 McM 3,000 JH 250 JH 5,100 YORK 3,000 US 525 StDU 2,080 YORK 2,400 GU 1,240 YORK 1,300 YORK 1,000 McM 1,000 DAL 3,500 McM 25,000 GU 2,500 US 1,425 YORK	
		10,800		150,112	
*No. of awards.				Grand Total	160,912

NORTHERN SCIENTIFIC ADVISER NORTHERN SCIENCE RESEARCH GROUP

In the *Government Reorganization Act, 1966*, Section 18 vests special responsibilities in the Minister of Indian Affairs and Northern Development for fostering, through scientific investigation and technology, knowledge of the Canadian north and of the means of dealing with conditions related to its further development. The Northern Science Research Group sponsors and conducts research on northern subjects, encourages northern research by non-governmental agencies, and through the office of the Scientific Adviser is involved in the coordination of departmental and inter-departmental research. To encourage northern research by private, university, and government scientists, it operates the Inuvik Scientific Research Laboratory where it collects and disseminates scientific information. Its responsibilities cover encouragement of northern research in all fields of scientific endeavour, but its relatively small internal program is concentrated in the area of applied anthropology, a field in which external agencies and scientists have been relatively inactive.

In 1962 a grants program was inaugurated and designed to encourage northern research by universities and to train scientists with specialized interests and commitments to northern work.

A special committee composed of government and university scientists makes recommendations to the Minister on the distribution of funds to university institutes or presidential committees for northern studies. The committee's recommendations are based on study of the proposed programs of research supplied by these institutes and committees. Recipients use their awards for research in all the sciences. The funds awarded are administered by the business offices of the universities. Reports from recipient institutes and committees are presented annually.

Research Grants

In 1966 - 67, a total of \$200,000 was granted to 13 universities and private groups. In 1967 - 68, \$250,000 was divided between 12 such groups. In both years, studies were related to such fields as geography, sociology and geology.

Research Contracts

Although the contracts listed are followed by an institution's name, the contracts themselves have been made with individuals. The terms are laid down by the Department, although an individual may have originated the proposal. In the 1966 - 67 period, \$17,640 in contracts was issued. Items such as the Mackenzie Delta Research Project included expenditures for academic and private researchers. Other contracts were awarded to study the role of sled dogs in the changing Arctic economy, for a comparative study of Eskimo administration, and for a study of sea-ice movements on the Arctic coast.

In 1967 - 68, contracts totalling \$7,074 were made with nine individuals. In most instances, persons under contract were associated with universities, although their services were obtained for private consultation. Most agreements were for small amounts, the major expenditure being an amount of \$5,000 for an engineering study of utilidors in northern communities. There was a decrease of \$10,566 in funds expended on contracts for 1967 - 68.

Other Research Support

In recent years, it has proved more satisfactory to employ university staff and graduate students for the summer rather than to negotiate contracts with them. This allows greater flexibility as summer studies are, for the most part, of a socio-economic nature. In 1966 - 67, \$24,001 was expended on seasonal employment by academics while in 1967 - 68, \$11,864 was expended on this kind of work.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	10,000 MONT 7,000 UA 6,500 StP 25,000 LAV 3,000 LAKE 24,000 US 12,500 MEM 10,000 McG 13,500 OTT 16,000 UM 47,000 AINA-3* 3,000 YUK 22,500 UBC	150 WAT 50 PTE 228 ILL 332 UBC 150 WAT 220 NC 150 WAT 141 UM 50 PTE 300 WAT 200 PTE 39 PTE 1,000 PTE 800 PTE 8,000 McG 3,000 PTE 2,500 HARV 330 PTE	summer employment: 3,641 WAT 3,618 WAT 3,233 ILL 3,508 PTE 3,334 UBC 6,667 VICT
			200,000	17,640	24,001

Grand Total 241,641

1967-1968					
—	—	—	10,000 UM 11,000 UA 8,000 StP 27,000 LAV 27,000 UBC 20,000 UM 4,000 LAKE 27,000 US 17,000 MEM 11,000 McG 19,500 TO 8,500 OTT 5,000 US 55,000 AINA-3	65 TO 275 SFU 250 DAL 5,000 HARV 382 VICT 382 UBC 200 WAT 370 PTE 150 DAL	summer employment: 2,413 VICT 445 UBC 5,602 DAL 880 OTT 2,524 SGW
			250,000	7,074	11,864

*No. of grants.

Grand Total 268,938

INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

Summary Table
Research Expenditures
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support	Branch Division
1966-1967						
-	-	-	-	55,350	-	Indian Affairs Branch
				32,067		Northern Administration (Education Division)
				184,877		National and Historic Parks Branch
		4,800		86,748		National Historic Sites Service
			200,000	17,640	24,001	Canadian Wildlife Service
						Northern Scientific Adviser
						Northern Science Research
		4,800	200,000	376,682	24,001	
Grand Total						605,483
1967-1968						
-	-	-	-	41,200	-	Indian Affairs Branch
				1,000		Northern Administration (Education Division)
		4,000		39,805		National and Historic Parks Branch
				81,132		National Historic Sites Service
		10,800		150,112		Canadian Wildlife Service
			250,000	7,074	11,864	Northern Scientific Adviser
						Northern Science Research
		14,800	250,000	320,323	11,864	
Grand Total						596,987

INDUSTRY

Operating Grants

The Department of Industry provides financial assistance to Canadian universities to help them establish Industrial Research Institutes. The primary purpose of these institutes is to undertake contract research on behalf of industry by utilizing the universities' staff and facilities. While some institutes may also provide supplementary educational services for industry in the form of specialist training, refresher courses or technical seminars, this is not their primary objective. While the Department does not dictate how institutes are to become self-supporting, it would normally expect them to rely on revenues from the sale of their services to industrial and other customers, rather than on financial assistance from the university itself.

Although grants usually cover administrative expenses of the institute for the first three years, this period can be extended. Assistance under the program takes the form of a grant payable in instalments, usually over the three-year period following the establishment of an institute. Payments in any one year are limited to a fixed amount or to the actual expenditures made by the university during the year. The university does not, however, contribute to the direct cost of conducting research on behalf of industrial or other customers. In 1967 - 68, payments were made to the Centre for Applied Research and Engineering Design, McMaster University; the Industrial Research Institute, University of Windsor; the Atlantic Industrial Research Institute, N.S. Institute of Technology. In addition, a payment was authorized to the Industrial Research Institute, University of Waterloo, but no actual amount was expended in the aforementioned fiscal year.

The greatest single expenditure, \$1,442,240 in 1966 - 67, was for McGill University's High Altitude Research Program (HARP). This figure represents about 50 per cent of the total cost of the program. As a result of the phasing out of HARP in 1967 - 68, the Department's contribution decreased to \$57,760. Amounts expended on the project were paid into the revolving fund of the Department of Defence Production, which was responsible for making payments to McGill University.

Research Grants

In 1966 - 67, the University of Saskatchewan received a \$15,000 grant towards the preparation of an economic atlas of Saskatchewan. The Department granted McGill University \$7,000 in 1967 - 68 for research in audio-visual techniques as used at Expo '67.

Research Contracts

In 1966 - 67, \$26,070 was expended on research contracts. A contract for \$15,984 was made with Queen's University through the Area Development Agency of the Department. Similarly, a \$10,086 contract was made with a University of Toronto professor for an auto adjustment assistance study.

In 1967 - 68, research contract payments were made to individuals at the universities listed on the table. These contracts were continued in the subsequent fiscal year at a cost of \$17,812 and \$4,539 respectively. Other research contract payments in 1967 - 68 were made to individuals at the universities listed on the table.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	1,442,240 McG-HARP	—	15,000 US	10,086 TO 15,984 QU	
	1,442,240		15,000	26,070	
Grand Total					1,483,310
1967-1968					
—	19,206 WIND 25,000 McM 40,000 NST 57,760 McG- HARP	—	7,000 NFB-McG	4,539 TO 2,850 DAL 7,420 MEM 3,432 UNB 18,101 WAT 13,361 TO 2,000 TO 4,889 UBC 17,812 QU 5,441 DAL	—
	141,966		7,000	79,845	
Grand Total					228,811

NATIONAL DESIGN COUNCIL

The National Design Council was established in 1961 to promote and expedite improvement of design in the products of Canadian industry. The Council awards scholarships and grants to individuals and institutions in Canada for study or research in the design field here or abroad.

Awards

Scholarships are offered to industrial designers and design students for advanced study in industrial design in Canada or abroad. Those listed on the table are for doctoral studies.

Excluded from the scholarship and grant programs of the Council are activities identified exclusively with the fields of fine art, handicrafts, and architecture except when these

activities relate directly to the field of industrial design. Packaging, craft based industry, manufactured architectural components, and structural systems are activities that fall into this category.

Research Grants

Research grants provide financial assistance to qualified persons for projects directly related to industrial design in important areas of Canadian industry. During 1966-67, seven grants totalling \$18,880 were awarded to individuals and institutions to assist in design research projects. In the following year, ten design research grants totalling \$40,575 were awarded to assist various undertakings in design research.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	scholarships: 2,450	2,000 UM 3,000 DOON-WAT individuals and associations: 1,000 5,000 2,880 2,000 3,000	—	—
		2,450	18,880		
Grand Total					21,330
1967-1968					
—	—	scholarships: 3,000 3,000	8,875 TO 1,500 WAT 4,500 WAT 4,950 WAT 1,250 TO individuals and associations: 1,500 6,000 3,500 1,500 7,000	—	—
		6,000	40,575		
Grand Total					46,575

INTERNATIONAL JOINT COMMISSION

Research Contracts

In 1966 - 67, the Canadian section of the Commission employed an academic at Carleton University to compile source and secondary material leading to the establishment of the Commission, and to its later development. The Commission also employed a professional

engineer to advise on a program being developed by their International Water Pollution Board to investigate pollution in Lake Erie, Lake Ontario, and the international section of the St. Lawrence River. This same engineer was also asked to prepare a brochure on the work of the Commission in water pollution.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
-	-	-	-	2,239 CARL 1,020 PTE	-
				3,259	
Grand Total					3,259
1967-1968					
-	-	-	-	429 CARL 2,940 PTE	-
				3,369	
Grand Total					3,369

LABOUR

The Department of Labour assists research mainly through its University Research Program which has been in operation since 1951. The Department also performs a number of smaller functions such as initiating research contracts with university personnel and research consultants. It also administers an awards program.

Awards

In the two fiscal years under review, the Department has given fellowships of \$6000 each under the Canada International Labour Fellowship Plan to senior Canadian scholars for research at the International Institute for Labour Studies, Geneva. The fellowships carry generous allowances for travelling and research expenses. These are generally awarded to scholars in university, industry, or government who have demonstrated an ability to carry out advanced research in the Labour field, and are used for research undertaken in a European or international setting. In the two years surveyed, a total of \$12,000 in fellowships and allowances has been allocated under this program. To date, recipients have been senior faculty members, specializing in either economics or sociology.

In addition to conducting their research, the fellows are expected to contribute to the teaching or seminar program of the Institute.

Research Grants

By providing grants in aid of research, the Department seeks to increase the body of knowledge on labour matters and to stimulate greater interest in this field among established scholars and graduate students. The research may be on economic, industrial relations, social or other aspects of labour, including wages, incomes, productivity, technological change, collective bargaining, labour law, and labour history.

Graduate students, university faculty, and others possessing research qualifications are eligible for these grants providing they are Canadian citizens and possess a university degree. Research groups and other such teams are also eligible to receive grants. Individual

grants may reach \$5,000 in a given year while those awarded to research groups may exceed that amount. Adjudication is rendered by a Department of Labour University Research Committee composed of representatives of Canadian universities as well as federal government departments. The Committee considers the nature of the project, qualifications of the applicant, and the availability of funds. The grantee is responsible for the conduct and completion of the proposed project and upon its completion must submit a final report and summary. Rights to the study remain the property of the authors.

Grants are sent directly to the university concerned and are administered by its business office. Under a new ruling, the first instalment is paid but the second is withheld until receipt of a satisfactory progress report by the secretary of the Committee. If a recipient is studying at a foreign university, funds are sent directly to him. In 1966 - 67, grants to university affiliated academics, private individuals, and institutions for research totalled \$136,410. In 1967 - 68, expenditures decreased to \$99,792.

Research Contracts

The Department has also entered into a number of contracts with university personnel; these have been noted on the table. A number of university faculty members were also employed on research projects during the summer. Several university students were hired for the summer to assist in departmental research.

Consultants and specialists not affiliated with any particular academic institution were hired because of previous background and experience relevant to the Department's consultative and contract work. Expenditures for 1966-67 and 1967-68 were \$21,603 and \$28,167 respectively.

Other Research Support

As noted in the introduction, royal and temporary commissions, including task forces, are excluded from this report because they are not permanent parts of the federal administrative structure. Nevertheless, it might be of interest to the reader to note such expenditures

during the fiscal years covered by this survey as carry out research tasks for these bodies.
many members of the academic community Expenditures are listed in Appendix B.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	fellowships: 12,000	4,965 JH 2,900 US 5,000 MONT 2,500 McG 3,350 McM 3,500 WO 2,000 CORN 4,500 McG 3,000 TO 2,000 QU 1,000 UA 2,000 UW 5,000 MSU 4,000 CALG 2,000 HARV 14,625 PTE 1,800 OTT 2,000 CARL 1,600 WIND 3,400 McG 1,000 BRAN 1,200 UA 4,320 TO 1,200 TO 1,700 WO 2,500 UA 1,250 TO 3,500 McG 3,500 MONT 2,500 MONT 11,000 TO 3,000 MONT 5,000 QU 10,600 QU 2,000 McG 11,000 PTE	2,295 PTE 320 UA 2,000 PTE 12,844 OTT 4,144 PTE	—
		12,000	136,410	21,603	
Grand Total					170,013

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	fellowship: 12,000	5,000 TO 5,000 JH 3,650 MEM 5,000 OTT 4,750 CARL 1,200 UW 1,867 WO 2,000 TO 500 LSE 4,000 QU 1,600 WIND 3,000 QU 5,000 MONT 1,500 YORK 2,500 SGW 2,000 MONT 2,000 StDU 5,000 MONT 4,000 TO 725 MONT 1,200 WIND 1,800 MONT 2,250 QU 3,000 UBC 5,000 McG 5,000 QU 2,500 YORK 3,000 PTE 5,000 FRON 3,000 MONT 2,750 QU 5,000 QU	3,600 CINN 11,088 PTE 7,779 OTT 3,750 PTE 1,950 PTE	—
		12,000	99,792	28,167	
Grand Total					139,959

LIBRARIES AND ARCHIVES

The Library of Parliament, National Library and Public Archives are the nation's repositories and as primary sources of information are indispensable to many research scholars. Documents, the loan of books, and provision of reading and copying facilities are invaluable items of research support. The staff of these three organizations maintain regular contact with the Canadian academic community and provide advisory service on request.

These organizations reported no expenditures on research per se in either of the two fiscal years. The services which they provide, none the less, contribute significantly to the academic community. Although service functions

cannot be accurately costed, their support to scholars and research students should be mentioned in a report of this kind.

As one example, the Library of Parliament distributes its older surplus parliamentary papers, journals, copies of Hansard, statutes and sessional papers to the academic community. In addition, it provides other departmental libraries with the overflow of its many documents. This cooperation is best exemplified by the exchange of thousands of volumes of books and newspapers with the National Library. Bibliographies, usually annotated, are prepared for parliamentarians, but are later made available to academic libraries on request.

MANPOWER AND IMMIGRATION

Research Grants

During 1966 - 67, the Department of Manpower and Immigration took over Program Ten, which had previously been under the Department of Labour and was administered under the *Technical and Vocational Training Assistance Act* (TVTA) with the Department and provinces sharing equally the costs of research projects approved under the terms of signed agreements. On March 31, 1967 the TVTA Act expired, and Program Ten became the Manpower Training Research Program operating under agreements as provided for by the *Adult Occupational Training Act*.

All assistance under the Manpower Training Research Program and its predecessor was paid to the provinces either under contract to or with grant support from the provinces. In two cases, the provinces used this program to support individuals undertaking relevant research. An academic at Dalhousie University received \$7,250; another at the University of Alberta received \$2,800. In 1966 - 67, when this Department was formed, funds from the Department of Labour's Research and Development Grants Program were transferred to the

new Department. Out of those funds one grant of \$8,000 was made to the AUCC.

In 1967 - 68, the Department instituted two new programs: the Manpower and Immigration Research Grant Program, and the Vocational Rehabilitation Research Grant Program. These programs are designed to provide grants to social scientists outside the Public Service for research in areas relevant to the Department's policies and operations.

Research Contracts

In 1966 - 67, all contractees were university academics. In the following year, there were ten contracts with Canadian academics and one for \$2,000 with the University of Toronto, one with a member of the Southern Alberta Institute of Technology, one for \$1,500 with the Canadian University Society of Great Britain, two with American academics, and one for \$35,000 with Johns Hopkins University.

Total expenditures on research grants and contracts during 1966 - 67 were \$144,300. The following year the total was \$470,861.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	8,000 AUCC 2,800 UA 7,250 DAL 4,150 NS 8,000 PQ 91,150 ONT 750 BC	2,500 YORK 1,000 TO 18,700 MONT	—
			122,100 EST	22,000	
Grand Total					144,300

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	2,300 WAT 2,980 LAKE 11,000 TO 3,000 McG 1,250 McG 4,500 QU 2,670 WAT 4,100 UBC 9,100 QU 7,680 PRIN 9,924 PTE 2,500 PTE 2,500 PTE 13,000 NS 10,786 NB 100,000 PQ 168,000 ONT	1,500 TO 350 SFU 9,000 JH 7,500 TO 3,000 CARL 2,000 TO 35,000 JH 1,875 McM 300 SAIT 4,500 QU 14,000 SFU 500 TAM 20,000 McG 13,046 TO 1,500 CSGB 1,500 WLU	—
			355,290 EST	115,571	
Grand Total					470,861

MEDICAL RESEARCH COUNCIL

The Medical Research Council supports research in the medical sciences to the extent of funds voted by Parliament. This support consists of an extensive extramural program of grants in aid of research proposed and carried out by staff members at Canadian universities, hospitals, and institutes, as well as fellowship, scholarship and associateship awards. In addition, the Council sponsors various special programs designed to promote the development of medical research in Canada¹. Funds provided by the MRC for all categories of grants in aid of research and direct personnel support are administered by the business office of the recipient's institution except in the case of fellowships tenable outside Canada.

Capital Grants

Major equipment grants are made for the purchase of special research equipment costing over \$5,000. These grants are not for the purchase of laboratory furniture or items of permanent equipment normally supplied by the institution, nor are they intended to provide tools for teaching, diagnosis, or care of patients. Unless otherwise stipulated, equipment purchased under a grant belongs to the institution holding the original grant and may only be moved with the approval of that institution.

Operating Grants

Under the Special Group Research Program, MRC provides core grants for research units covering salaries, etc. During 1967 - 68, a total of \$214,245 was awarded to the University of Montreal's Medical Research Council Group for Neurological Science.

Awards

MRC associateships are designed to encourage the long-term planning and development of medical research in Canadian universities by providing funds for the salaries of individuals of outstanding ability and training who wish to make research a full-time career. MRC scholarships are designed to provide

support for trained investigators who have ability to initiate and carry out independent research. These awards are intended to free individuals and develop their skills unhampered by the heavy teaching duties often expected of university staff members.

MRC fellowships are given for advanced training in medical research. Fellowships are not awarded for the purpose of providing practical training and experience in clinical or other branches of medicine. Summer undergraduate medical research scholarships are provided annually to Canadian medical schools for undergraduates seeking research training during the summer months. The scholarships valued at \$1,200 each are tenable for a period of three months. Candidates must have completed their first medical year and must rank in the upper 20 per cent of their class. Funds are made available in the form of grants to each Dean.

Research Grants

For 1966 - 67 and 1967 - 68, a total of \$9,539,388 and \$12,939,377 respectively was expended for annual research and term research grants.

Annual research grants are designed to support projects in rapidly growing or changing fields of research. This program has a long-term budget covering projects to be completed within a short period of time and projects to be carried out by less experienced investigators. A grant provides support for one fiscal year although it may be renewed on re-application.

Term research grants provide financial support on a term basis to scientists with well-developed programs at a stable level of expenditure. An investigator in this category may apply for support on these terms. Funds are subject to annual appropriation by Parliament and, for this reason, the Council must maintain a proper balance between its long-term commitment of funds, its annual renewal of grants and the initiation of new projects. The decision to provide term support depends not only on the individual project but also on the financial outlook of the Council's program as a whole.

¹Medical Research Council Extra-Mural Program, brochure.

Of the \$12,939,377 awarded in 1967 - 68, MRC has estimated that \$170,000 will go towards general items including support for research students, small purchases, etc. There is no exact breakdown for this total.

Other Research Support

In addition to providing assistance for research projects and personnel, MRC, under its Special Activities Program, promotes the development of medical research in Canada and provides optimum conditions for research in areas expected to be especially productive. The Council also fosters research in areas needing stimulus. To this end, it provides funds for travel, symposia support, visiting professors, and scientists.

General research grants enabling universities to meet local needs for medical research are

awarded for travel to scientific meetings, unanticipated equipment requirements, additional graduate student support, research assistance for new staff members, technicians' salaries or funds to pursue a promising new line of research.

Limited funds for travel grants are provided to medical scientists to visit specific laboratories for the purpose of furthering their research or to cover the cost of attendance at international congresses selected by the Council.

Research trainees supported by the Council are encouraged to participate in Canadian scientific meetings. Beginning in 1967, MRC fellowship recipients and graduate students employed under MRC grants, whether registered for a higher academic degree or not, were eligible to receive the equivalent of return economy air fare to attend, in Canada, one scientific meeting per year of a national society.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
2,548,219	—	associateships: 849,429 scholarships: 855,080 fellowships: 899,418 summer research: 92,400	9,539,388	—	general: 336,000 special activities: 222,099 travel: 7,967
2,548,219		2,696,327	9,539,388	566,066	
Grand Total					15,350,000

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
2,631,674	214,245 MONT	associateships: 954,842 scholarships: 1,221,477 fellowships: 1,584,797 summer research: 194,400	12,939,377	—	general: 336,000 special activities: 403,668 travel: 19,520
2,631,674	214,245	3,955,516	12,939,377		759,188
Grand Total					20,500,000

NOTE: Recipients names, affiliations, and subjects are contained in the pamphlet, *MRC University Support* 1966-67, 1966-68.

NATIONAL DEFENCE

DEFENCE RESEARCH BOARD

The Defence Research Board is responsible for conducting all research programs for the Department of National Defence. In addition to its internal research functions, the Board's involvement with research is carried on through university research contracts, grants to university scientists, consultants, and research assistants. The Board receives valuable services in exchange from members of the academic community who serve on its panels and committees.

Basic responsibilities of the extramural research program are: to acquire new scientific knowledge pertinent to technical defence problems; to develop and support an interest in defence science; and, to assist DRB with staffing.

The Board also provides support for research by conducting work in the social sciences at its Toronto establishment and in other universities, and by arranging industrial and university contract research through the Department of Defence Production. Industrial contracts under the Defence Industrial Research Program are separate items in the Department of National Defence budget. Matching contributions are made by DRB.

In 1967 - 68, approximately \$4.5 million was expended on grants and \$4.7 million was spent in the previous year. These grants were initiated either from headquarters or regional establishments. During 1967 - 68, industry expended \$13,300 out of \$4.5 million granted by DRB for the services of university academics. Of this total, \$4,000 assisted one academic on research related to his doctoral dissertation. Industry also engaged research students for their programs but amounts expended are not known.

Research at the Military Colleges is also supported by the Board. There are no graduate students to date but master's work is soon to be introduced at the Royal Military College with an eventual progression to the doctoral level.

Research Grants

DRB cash grants to university scientists totalled \$2,455,816 in 1966 - 67. These were awarded to personnel in 41 universities, affiliated hospitals, and military colleges. The average grant for 1966 - 67 was \$8,000.

About 45 per cent of the granted amount was spent on equipment and supplies, 45 per cent on payments to students or assistants, and 10 per cent on miscellaneous items such as travel, postage, etc. The following year \$2,821,340 was awarded.

The brochure, *Grants in Aid of Research and Relevance to Defence Interest*, July 1967, provides an extensive breakdown of the basic and applied sciences significant to defence interests. There is, however, no mention of actual financial allotments for each sub-heading.

Research Contracts

Contracts with universities for specific research projects account for large expenditures by DRB. These contracts are let through the Department of Defence Production from headquarters or from a registered establishment identified with a project.

In 1966 - 67, \$373,409 was expended on contracts with universities and scientists. Although no breakdown is available, 33 institutions and scientists were under contract. The following year 46 contracts were awarded at an estimated expenditure of \$608,093.

University personnel are also engaged for limited periods of time as consultants for special research projects. Consulting arrangements are made with industrial personnel usually on a contract basis. In 1966 - 67, 53 university consultants were employed at a cost of \$16,750 while in 1967 - 68, 44 contracts with consultants cost DRB \$15,925. Research contracts totalled \$390,159 for 1966 - 67 and \$624,018 for the following year.

Other Research Support

Each year the Board employs undergraduate and graduate students during the summer vacation as well as a limited number of professors. Total salaries paid to summer research assistants

and faculty members are noted on the table. Apart from financial support, DRB permits its scientists to lecture at universities and also provides research facilities for graduate students and faculty members.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966 - 1967					
—	—	—	6,000*1-AC 51,200 9-UA 178,975 21-UBC 26,025 6-CALG 19,700 4-CARL 53,590 5-RMC 74,026 11-DAL 6,000 1-EP 4,475 1-GU 94,125 15-LAV 1,000 1-LOY 63,175 9-UM 351,950 35-McG 111,950 17-McM 3,000 1-MONC 60,850 8-MONT 7,800 1-MTA 26,900 3-UNB 10,000 3-NST 5,800 1-ORF 67,400 12-OTT 74,400 11-QU 122,850 16-RMC 17,900 6-RMC 120,575 13-US 13,500 1-StFX 22,200 4-SHER 21,000 3-SFU 36,225 4-IMH-SCH 465,400 36-TO 58,900 3-VICT 87,850 19-WAT 128,875 18-WO 41,200 6-WIND 21,000 2-YORK	373,409 (33)* consultants: 16,750 (53)	research assistants: 224,975 professors salaries: 34,076
			2,455,816	390,159	259,051
*No. of grants/contracts.				Grand Total	3,105,026

RESEARCH EXPENDITURES

in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967 - 1968					
—	—	—	6,000*1-AC 133,925 20-UA 3,475 1-BRAN 214,675 21-UBC 78,875 12-CALG 27,200 6-CARL 27,850 6-RMC 45,800 6-DAL 15,400 2-EP 16,050 2-GU 132,200 18-LAV 7,500 1-LOY 92,025 14-UM 359,650 35-McG 143,050 21-McM 5,000 1-MEM 3,000 1-MONC 83,850 10-MONT 28,700 4-UNB 6,200 2-NST 56,900 8-OTT 91,250 13-QU 240,965 19-RMC 20,325 3-RMC 123,500 14-US 5,000 1-US 36,100 5-SHER 40,300 6-SFU 391,725 37-TO 43,300 5-VICT 105,950 23-WAT 130,100 16-WO 43,950 7-WIND 26,000 5-YORK 35,550 4 IM-SCH	608,093 (46)* consultants: 15,925	research assistants: 194,770 professors salaries: 47,739
			2,821,340	624,018	242,509
*No. of grants/contracts.				Grand Total	3,687,867

NATIONAL FILM BOARD

Research Contracts

During 1966 - 67, the National Film Board in conjunction with other government depart-

ments, joined in a project with McGill University to study the effects of audio-visual presentation methods at Expo '67. The Board's portion of this contract was \$28,000.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-67					
-	-	-	-	28,000 McG	-
				28,000	
				Grand Total	28,000

NATIONAL HARBOURS BOARD

Research Grants

In 1966 - 67, a research grant of \$5,000 was awarded by the Board to provide financial assistance to a UBC research student for a doctoral thesis on port activities. The Board's portion represented 50 per cent of the total grant; the remainder was paid by the Department of Transport.

Research Contracts

During 1966 - 67 three contracts totalling \$58,500 were awarded to the British Columbia Research Council for studies related to port conditions and facilities. In the following year, a \$3,100 contract with a UBC professor was authorized to support a project on shipping costs and their implications for port investments.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-67					
—	—	—	doctoral: 5,000 UBC	40,000 BCRC 3,500 BCRC 15,000 BCRC	—
			5,000	58,500	
Grand Total					63,500
1967-68					
—	—	—	—	3,100 UBC	—
				3,100	
Grand Total					3,100

NATIONAL HEALTH AND WELFARE

Since both the federal and provincial governments have constitutional responsibilities in the areas of health and welfare, they cooperate in promoting the improvement of standards and services. Joint research has been carried out since the inception of the National Health Grants Program in 1948. Major expenditures on research are channelled through public health research grants.¹

As a result of this Department's size and the extent of its financial support of research in the academic community, a survey was carried out by the Deputy Director-General of the Health Services Branch and the Supervisor, Health Expenditures and Resources, Health Research Division. Data from the survey questionnaire plus additional material were collated for the tables. The text accompanying each table is based on information provided by the Department.

¹*Research Projects Being Assisted Under the National Health Grants Program in Fiscal Year 1967-68 and Projects Terminated March 31, 1967, Dept. of National Health and Welfare, Ottawa, 1967.*

SURVEY QUESTIONNAIRE

Department of National Health and Welfare

Expenditures on Education

This survey has been authorized by the Deputy Ministers. Please complete *either* a questionnaire for each program within each province *or* one for each project, whichever is more convenient.

1. Name of program or project _____
2. Province in which this expenditure was made _____
3. Academic field or subject content _____
4. Amount of expenditure made or to be made:

(a) during fiscal year ended March 1966	\$ _____
(b) during the fiscal year ended March 31, 1967	\$ _____
(c) during the fiscal year ended March 31, 1968 (estimated)	\$ _____
5. Of the expenditure made during the fiscal year ended March 31, 1967, how much:

(a) was for research	\$ _____
(b) was for education	\$ _____
(c) was for a combination of research and education	\$ _____
6. Of the expenditure made during the fiscal year ended March 31, 1967, how much:

(a) was paid directly to provincial governments	\$ _____
(b) was paid directly to institutions	\$ _____
(c) was paid directly to individuals	\$ _____
7. Of the expenditure made during the fiscal year ended March 31, 1967, how much was:

(a) for contractual research undertaken on the initiative of the department	\$ _____
(b) for research undertaken on the initiative of the researcher	\$ _____
(c) for the operating expenditure of an institution	\$ _____
(d) for the capital cost of an institution	\$ _____
(e) for individual students	\$ _____
(f) for the expenses of holding seminars	\$ _____
8. Of the expenditure made during the fiscal year ended March 31, 1967, how much:

(a) was for education or research to be undertaken in a university setting	\$ _____
(b) was for education or research to be undertaken in a hospital setting	\$ _____
(c) was for education or research to be undertaken in another setting	\$ _____
9. Legislative authority (Act or Order in Council) for the expenditure
10. In the future is the expenditure under this program likely to:

remain constant	<input type="checkbox"/>	increase	<input type="checkbox"/>	decrease	<input type="checkbox"/>	cease	<input type="checkbox"/>
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Give particulars if possible:

HEALTH INSURANCE AND RESOURCES
BRANCH

Health Grants Division

The objectives of this program are:

- 1. To evaluate present administrative procedures in hospitals and health units with a view to improving these by scientific experimentation.
- 2. To look at populations and sub-populations in terms of their environmental living conditions and to correlate these observations with the state of their morbidity and mortality to learn more about the aetiology of disease and death.

- 3. To support studies that will result in new large scale programs for the prevention of disease, disability, and death.
- 4. To support research into the ways and means of controlling environment and removing hazards from pollution of the air, land, and waters.
- 5. To support research programs aimed at training and mobilizing more efficiently the professionals and semi-professionals who will play a role on the health team of the future.

Grants are made directly to the provinces and territories for expenditures on research in the academic community.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	public health: 52,210 NFLD 20,933 PEI 226,327 NS 31,600 NB 872,989 PQ 1,527,884 ONT 711,227 MAN 201,072 SASK 141,889 ALTA 453,815 BC 6,352 NWT	—	—
			4,246,303		
Grand Total					4,246,303
1967-1968					
—	—	—	public health: 52,721 NFLD 24,454 PEI 181,431 NS 31,075 NB 787,533 PQ 1,548,220 ONT 502,774 MAN 300,406 SASK 161,404 ALTA 493,722 BC 6,581 NWT	—	—
			4,090,321		
Grand Total					4,090,321

Health Resources Division

Grants received by universities, university hospitals and affiliates, and other hospitals were made through the provincial governments. In all

cases, these were capital grants providing research facilities for construction or equipment purchases. The table indicates whether the amounts expended were in a university or hospital setting.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
1,013,418 *U-NB	—	—	—	—	—
433,644 U-PQ					
702,524 U-BC					
2,149,586					
* University.	Grand Total				2,149,586
1967-1968					
1,603,632 U-NS	—	—	—	—	—
486,669 -†HPQ					
2,001 U-SAS					
215,259 U-BC					
2,307,561					
†Hospital.	Grand Total				2,307,561

Mental Retardation Grants

These grants, introduced in 1967 - 68, are designed to determine new methods of solving mental problems. The grants are paid directly

to the researcher or research team in the provinces noted on the table. Of the estimated total \$27,984 was granted to individuals in the province of Quebec, and the balance to university institutions in three other provinces.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	25,000 NS	—	—
			27,984 PQ		
			60,000 SASK		
			23,755 BC		
			136,739 EST		
Grand Total					136,739

MEDICAL SERVICES BRANCH

The Branch supports research on an individual basis for investigators at universities.

The purpose of the program is to study and control amoebic infection. Affiliations of the university investigators were not provided.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	17,000	—	—
			17,000		
Grand Total					17,000
1967-1968					
—	—	—	17,500	—	—
			17,500		
Grand Total					17,500

FOOD AND DRUG DIRECTORATE

The Directorate administers the Food and Drug Act which deals with food, drugs, cosmetics, and medical devices. As a result, expenditures on research are not for the advancement of knowledge per se, but rather to provide solutions for specific problems such as hazards to health, fraud, etc.

Contract funds are made available to institutions to carry out research in specialized areas

not served by the Directorate's staff, equipment, or facilities. There is no statutory authority for such expenditures; they are carried out as service contracts to provide specific information. The Directorate anticipates a greater utilization of such contracts for which it assigns priorities and approximates financial requirements. Individual researchers receive direct payments.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	14,000	—
				14,000	
Grand Total					14,000
1967-1968					
—	—	—	—	25,000 EST	—
				25,000	
Grand Total					25,000

**WELFARE ASSISTANCE AND
SERVICES BRANCH**

amount of \$5,500 for research in mental retardation. The latter amount is distinct from the mental retardation grants listed under the Health Insurance and Resources Branch.

Research Grants

Research grants are designed to encourage research activities in welfare at universities or institutes for social and economic research. During 1966 - 67, a total of \$27,237 was expended (no breakdown is available), and in the following year, the totals represent an estimate of \$125,000, with an additional

Awards

Awardees receive \$4,000 per annum with a travel allowance and \$500 for dependents. The figures on the table are aggregate totals. Awardees are mostly doctoral candidates with some individuals involved in postdoctoral work.

**RESEARCH EXPENDITURES
in dollars**

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966 - 1967					
—	—	doctoral: 61,693 (19)	27,237	—	—
		61,693	27,237		
Grand Total					88,930
1967 - 1968					
—	—	doctoral: 55,989 (16)*	125,000 5,500	—	—
		55,989	130,500 EST		
Grand Total					186,489
*No. of awards.					

FITNESS AND AMATEUR SPORT DIRECTORATE

Capital Grants

One grant was made to the University of Alberta for special equipment.

Operating Grants

Three research core units at the universities of Alberta, Montreal, and Toronto are supported by grants designed to enable these institutions to pursue research in physical education, recreation, and related fields.

Awards

Doctoral degree candidates receive awards worth \$4,000 per annum tenable anywhere. Most recipients study abroad as few Canadian universities offer graduate and research studies in the fields of physical education and recreation. In addition, the Directorate offers fellowships for special studies.

Research Grants

These are payable to academics on a reimbursement basis for individual projects. The grant to the government of the Northwest Territories was made for a pilot research project on the integration of Indians and Eskimos into athletic activities.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966 - 1967					
14,959 UA	50,000 UA 50,000 MONT 50,000 TO	doctoral: 80,890 (37)* fellowships: 3,236 (2)	8,620 DAL 15,000 MONT 2,500 MGH 21,325 RVH 19,993 WO 12,682 TO 11,000 TO 13,232 UM 23,635 US 197 UA 23,587 UA 2,495 UA 13,735 UBC 1,927 UBC 5,286 UBC 5,774 UBC	—	—
14,959	150,000	84,126	180,988		
*No. of awards.				Grand Total	430,073

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967 - 1968					
—	65,000 UA 50,000 MONT 60,858 TO	doctoral: 93,104 (45)* fellowship: 1,638	8,134 McG 4,361 McG 2,866 SGW 18,260 MONT 9,744 LAV 10,927 QU 18,708 WO 8,193 WO 11,144 TO 22,175 TO 5,831 YORK 18,234 UM 5,015 UM 27,599 US 4,780 US 3,811 US 4,161 UA 2,949 UA 1,347 UA 6,198 UA 15,930 UA 9,017 UA 595 UA 137 UA 6,859 UA 9,267 UBC 1,440 UBC 5,200 SFU 1,733 SFU	—	—
	175,758	94,742	244,615		
*No. of awards.				Grand Total	515,115

NATIONAL HEALTH AND WELFARE

Summary Table Research Expenditures in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Branches Divisions	
1966 - 1967						
2,149,586			17,000	14,000	Medical Services	
			4,246,303		Health Insurance and Resources	
					Health Resources	
					Health Grants	
14,959	150,000	61,693	27,237		Mental Retardation Grants	
			180,988		Food and Drug Directorate	
					Welfare Assistance and Services	
					Fitness and Amateur Sport Directorate	
2,164,545	150,000	145,819	4,471,528	14,000		
Grand Total					6,945,892	
1967 - 1968						
2,307,561			17,500	25,000	Medical Services	
			4,090,321		Health Insurance and Resources	
					136,739	Health Resources
					Health Grants	
	175,758	55,989	130,500		Mental Retardation Grants	
			244,615		Food and Drug Directorate	
					Welfare Assistance and Services	
					Fitness and Amateur Sport Directorate	
2,307,561	175,758	150,731	4,619,675	25,000		
Grand Total					7,278,725	

NATIONAL MUSEUMS OF CANADA

The National Museums contract with universities to extend their research work into special fields and to overcome the difficulty in obtaining support work. In addition to contract work, university personnel regularly join Museum field parties.

Staff members also cooperate with universities by giving lectures on a regular basis. Full courses as well as special lectures are given at institutions across Canada, and collections are made available to graduate students. Staff members are also encouraged to upgrade their training.

The Museums use contract work to maintain overall program control. Contracts are usually for work to be done in Canada but there have been some exceptions. Foreign experts are brought to Canada to make special studies and exchanges between scholars are encouraged.

MUSEUM OF SCIENCE AND TECHNOLOGY

There were no expenditures by this museum in the categories surveyed by this report.

MUSEUM OF MAN

This museum contracts mainly with individuals, not institutions, but the few research contracts negotiated with non-university personnel are almost all scholarly in nature. This museum carries on the same type of liaison with the universities as the Museum of Natural Sciences. It also employs summer students from various Canadian universities for field and laboratory research.

Research Contracts

Contracts with university personnel, in the fields of ethnology, palaeochronology, linguistics, civil and military history, folklore, and physical anthropology amounted to \$149,412 in 1966 - 67. The following year, \$228,995 was expended.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966 - 1967					
-	-	-	-	1,500 UBC 250 TO 2,000 TO 4,000 Mm 1,500 TO 4,000 LAV 1,500 TO 550 SFU 400 UBC 35 UBC 1,500 MONC 300 MONT 2,500 UA 3,000 UBC 3,000 UA 5,850 TO 2,000 UA 3,000 UA 3,000 UM 3,000 US 3,000 TO 400 WIND Canadian: 83,285 *57-PTE 1,500 ROM foreign universities: 2,300 UW 2,500 FMC 400 HARV 1,500 GSC 1,000 ALAS 4,235 SUNY 2,500 SUNY 1,300 CALF other foreign: 4,000 PTE 1,000 PTE 225 PTE 432 PTE 550 BRIT	-
				149,412	

*No. of contracts.

Grand Total 149,412

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	—	1,500 UBC 4,000 LAV 1,200 WAT 170 MONT 1,500 MONC 4,350 MONT 3,000 UBC 3,000 TO 2,500 LAKE 800 CALG 5,200 UA 2,000 TO 3,900 UA 400 CALG Canadian: 155,475 *55-PTE 1,500 ROM 500 MA foreign universities: 2,500 SIU 4,000 UI 1,000 MD 2,000 CORN 2,000 UW 2,000 FMC 200 UNM 900 HARV 2,000 IND 4,750 WASH 4,800 ALAS 800 UW 3,250 CHIC other foreign: 2,000 PTE 1,000 PTE 800 PTE 1,000 PTE 1,000 PTE 1,500 PTE	—
				228,995	
*No. of contracts.				Grand Total	228,995

MUSEUM OF NATURAL SCIENCES

Research support is rendered by this museum in the form of contracts with university personnel both in Canada and abroad. In addition, private research contracts are negotiated, as well as contracts with personnel at museums and institutions outside the country.

Research Contracts

In 1966 - 67, contracts were negotiated with individuals in Canada and abroad, a number of

these with American academics. Natural science research contracts were let for studies in zoology, botany, palaeontology, and mineralogy. A total of \$59,465 was expended during 1966 - 67 and contracts totalling \$83,634 were awarded the following year.

During 1966 - 67, the three Museums spent \$208,877 on research. In the following year, expenditures rose to \$312,629.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
-	-	-	-	200 MEM 1,500 OTT 1,200 UA 1,250 CARL 1,250 UA 1,760 VICT 1,300 UA 1,000 VICT 1,250 UA 1,150 QU 800 GU 1,500 UA 500 OTT Canadian: 29,430 (25)* foreign univer- sities: 3,000 MINN 6,000 UPP other foreign: 4,875 IMM 1,000 IP 500 PTE	-
				59,465	
*No. of contracts.				Grand Total	59,465

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	—	1,100 UBC 2,000 MEM 2,000 WAT 1,600 UM 1,200 GU 1,500 OTT 2,500 VICT 2,000 VICT 1,450 US 2,000 DAL Canadian: 37,184 (17)* foreign univer- sities: 2,000 TUR 5,500 UPP 300 FS 2,000 DU 8,000 CU other foreign: 300 PTE 2,000 PTE 9,000 MBL	—
				83,634	
*No. of contracts.				Grand Total	83,634

NATIONAL GALLERY

The National Gallery, like the Parliamentary Library and the Public Archives, is continually involved in 'in-house' research.

Research Contracts

In the two years surveyed, only one contract was negotiated with an American professor of

chemistry. An amount of \$2,000 was expended in the first year and \$6,000 in the second. Research was carried out in the Gallery's laboratory.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
-	-	-	-	2,000	-
				2,000	
Grand Total					2,000
1967-1968					
-	-	-	-	6,000	-
				6,000	
Grand Total					6,000

NATIONAL RESEARCH COUNCIL

The Council's research support program provides grants for university professors, fellowships, scholarships, and assistance to a variety of scientific activities. Funds to finance the programs are obtained almost entirely from parliamentary appropriations. In 1967, NRC marked its fiftieth anniversary of activity in support of academic research. From 1957 to 1967, the Government of Canada through the NRC provided five times as much money for scholarships in research as it did in the preceding forty years. In 1960, the Medical Research Council of NRC became an autonomous body. Annual expenditures for NRC programs have increased rapidly during the past decade rising from \$2.7 million in 1957 - 58 to \$34.6 million in 1966 - 67.

Two types of university support are provided. Direct support is offered to individuals in the form of fellowships, scholarships, and grants in aid of research. Indirect support intended to encourage university research is available for scientific functions and organizations, publications of Canadian research journals, and administrative expenses of the Council's Program. These expenditures are not included in this survey.

Capital Grants

Grants are made towards the purchase of special research equipment or unit parts costing between \$5,000 and \$150,000. In 1966 - 67, \$5,785,000 was expended; in 1967 - 68, \$5,016,000 was spent. Major installations and institute development grants amounted to \$2,414,000 in 1966 - 67 and \$3,720,000 in the following year.

Within the limits of funds available, NRC supports computing and information research and computer requirements at universities by providing grants of up to 75 per cent of the rental, purchase, or maintenance costs of such equipment. The Council supports no more than one university computer facility at any one time. In 1966 - 67, \$1,300,000 was expended on computer facilities and the following year, \$2,373,000 was granted.

Total expenditures on capital equipment grants for 1966 - 67 amounted to \$9,499,000.

The following year, expenditures amounted to \$11,109,000.

Operating Grants

Awards are made on an annual or biennial basis to individual investigators toward the normal operating costs of their research projects. Funds may be used to employ assistants; to purchase small items of equipment, material or supplies; or for field trips, limited travel, and incidental expenses. In 1966 - 67 and 1967 - 68, these grants amounted to \$17,482,000 and \$24,482,000 respectively. In both years, grants for the assistance and promotion of the scientific community were also made. During 1966 - 67, \$768,000 was expended while in the following year, \$1,357,000 was granted. NRC operating research grants for 1966 - 67 amounted to \$18,250,000. The following year, \$25,839,000 was expended on similar grants.

About 27 per cent of the above funds were spent on salaries for graduate student assistants, 27 per cent on salaries for other assistants, and 46 per cent for equipment and supplies.

Awards

NRC offers awards and general assistance in the following categories: travel grants, fellowships and associateships, scholarships and fellowships, postdoctorate fellowships (overseas), postdoctorate fellowships (Canada), and postdoctorate fellowships (government departments).

Fellowships and Associateships

Travel grants. A limited number of grants are awarded annually to university staff members to help defray the cost of attending conferences, meetings, and symposia, or to sponsor visits to foreign laboratories. Each year a few grants are made to delegates appointed by the Council to represent Canada at international scientific conferences.

Senior research fellowships. A few fellowships are awarded annually to university staff members who have been granted sabbatical or

equivalent leave for periods ranging from six to twelve months. Applicants receive \$4,000 if single, \$5,000 if married, plus travel expenses.

Dental research associateships and scholarships. The Associate Committee on Dental Research provides funds each year for the salaries of a limited number of dental research associates and junior associates. (Dental research was transferred to MRC in 1968 - 69).

Scholarships and Fellowships

Scholarships in science librarianship and documentation. The Council's Associate Committee on Scientific Information offers ten scholarships to science or engineering graduates for advanced study in the fields of science librarianship and documentation. Scholarships valued at \$2,500 for one academic year plus a travel grant are awarded to applicants who are graduates or students in their last year of science or engineering courses. Science or engineering graduates who have completed or expect to complete one year of postgraduate study are awarded a \$3,000 scholarship¹.

1967 science scholarships. In recognition of NRC's research support to universities during the past fifty years, the Council established a new group of scholarships which were awarded for the first time in 1967. Intended to encourage outstanding students to pursue post-graduate studies leading to doctorates in science and engineering, these awards are tenable in Canadian universities other than those where applicants have obtained their first degrees. A basic stipend of \$5,000 for twelve months is provided. In addition to academic fees, travel grants are available. An annual grant up to \$1,500 is paid to the award winner's research supervisor.²

Awards tenable in Canadian universities. The following is an accurate description of the bursaries, studentships, special scholarships and PIER Fellowships awarded in 1966 - 67 and 1967 - 68. The Council has now, however, altered these programs.

Bursaries. These were awarded to students in one of the following categories: graduates in honours science courses or the equivalent with

no previous post-graduate training; students in their final year of honours science courses without full graduate standing; students doing post-graduate qualifying work after completing a general course. The basic award was \$2,500 for one year, plus a travel grant if required, and up to \$1,000 in supplemental payments. Similar studentships were awarded to applicants who had completed or expected to complete at least one year of post-graduate research training. Applicants received \$3,000 for twelve months, plus travel expenses if required and, up to \$1,000 in supplemental payments if the studentship was a first NRC award.

Post industrial experience research (PIER) fellowships. The NRC expanded its awards program in 1966 with the establishment of PIER fellowships. Under this program a research year in university or government laboratories is provided for engineers and scientists with professional experience in industry. Awards are for one year only, with research experience as the only goal. Academic credit is incidental. In 1967, fifteen fellowships valued at \$6,000 each plus allowances for travel and married recipients were awarded for the second year of a two year trial period.

Awards tenable at institutions outside of Canada. Figures on the table for post-graduate awards exclude the monies paid to students enrolled in their first year of post-graduate work. NRC was able to provide an estimate of the total expenditures made to such people; however, a breakdown of the amounts allocated to master's and doctoral studies was not available. In 1966 - 67, \$1,065,000 was awarded to first year post-graduate students; the following year, \$1,166,000 was spent.

Special scholarships. These were awarded to a restricted number of applicants who had completed or were near completion of their master's degree or the equivalent, and who wished to continue graduate studies at institutions outside of Canada. If the scholarship was tenable overseas, \$3,000 in Canadian funds was awarded with an optional travel grant. If tenable in the United States, the recipient received a scholarship of \$3,000 in U.S. funds and a travel grant, if required.

Postdoctoral fellowships at universities. The E.W.R. Steacie Memorial Fellowship is awarded to outstanding young researchers in the natural sciences and engineering whose development

¹*Postgraduate Scholarships in Science Librarianship and Documentation*, pamphlet.

²*1967 Science Scholarships*, pamphlet.

could be enhanced by relieving them of teaching duties to devote two or three years to research. One award, tenable in a Canadian university, is made every year.

Postdoctoral fellowships (Canada, abroad and government). These are awarded to applicants who have completed, or are near completion of their doctorate in science. They are tenable in universities and research institutions in Canada, abroad, and some in federal laboratories. If the award is tenable overseas, the recipient receives \$4,500 plus travel expenses. If the awardee is a married, male he receives \$5,500 and a travel grant, if required. Awards for 1966 - 67 and 1967 - 68 totalled \$4,704,122 and \$5,911,970 respectively.

Research Grants

For a number of years, the council has provided a general research grant to executive heads of Canadian universities where post-graduate study programs and Council supported research are carried out. The amount of each grant is calculated by a formula based on the total NRC operating grants received by the university in the previous year. The funds provided are for support of research in the recipient's university and are to be used as he sees fit. In 1966 - 67 a total of \$965,000 was expended. The following year, the total expenditure increased to \$1,687,000.

Research Contracts

In addition to its university support program, Council laboratories and committees occasionally contract with universities to perform specific jobs on behalf of NRC. This work may or may not lead to an increase in academic knowledge and is not considered as support to the institution contracted.

A total of 14 contracts were awarded at a cost of \$435,240 in 1966 - 67. The following year, 19 contracts let with universities amounted to \$488,338.

In 1965, NRC discontinued its program of postdoctoral fellowships tenable in Canadian universities. Certain universities participated in this program on a continuing basis, while others participated from time to time through special representations to the Council. In 1967, NRC's overseas fellowship program was revised. Canadian citizens and landed immigrants may now apply for awards held in Canadian universities as well as in universities and research institutes abroad.

The Council has discontinued the practice of awarding operating grants in block form. As an administrative convenience, grantees may pool funds for special purposes; a policy of non-interference in university research programs is maintained.

In summary, NRC's total expenditure on research was \$33,853,362 in 1966 - 67 and \$45,035,308 for the following year.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
5,785,000	17,482,000	travel:	965,000	435,240	—
2,414,000	768,000	410,000			
1,300,000		post-graduate Canada:			
		2,989,000			
		post-graduate foreign:			
		557,000			
		postdoctoral university:			
		430,000			
		postdoctoral government:			
		318,122			
9,499,000	18,250,000	4,704,122	965,000	435,240	
Grand Total					33,853,362
1967-1968					
5,016,000	24,482,000	travel:	1,687,000	488,338	—
3,720,000	1,357,000	490,000			
2,373,000		post-graduate Canada:			
		4,249,000			
		post-graduate foreign:			
		751,000			
		postdoctoral university:			
		108,000			
		postdoctoral government:			
		313,970			
11,109,000	25,839,000	5,911,970	1,687,000	488,338	
Grand Total					45,035,308

NOTE: Recipients names, affiliations and subjects are available from the *Annual Report on Support of University Research, 1966 - 67, 1967 - 68,*

POLYMER CORPORATION

Polymer was established as a Crown Corporation in 1942. Since then it has given support to universities in basic research. The objectives of Polymer's program are to encourage research relevant to its fields of activity; to utilize university academics for consultation; to develop good relations with universities; to assist in the recruitment of professional staff; and, to improve the universities' understanding of the nature and needs of industrial research and development.

In addition, the Company awards post-graduate scholarships. Other involvement which varies considerably from year to year includes capital and operating research grants to universities.

Requests for support based on specific proposals set forth by the universities are studied and recommended to the Board of Directors. Support is directed mainly to the sciences including engineering and business. The terms of each grant are negotiable and cover a finite period. A flexible and, to a degree, informal approach is used in administering grants to meet the changing interests that develop from year to year.

Capital Grants

In the first column of the table, the amounts granted represent capital outlays to Canadian universities. These figures are not named as they vary from year to year. The \$15,185 grant represents a donation of research equipment in that amount.

Operating Grants

One operating grant covered both fiscal years. \$9,237 was expended in 1966 - 67; \$10,000 was spent the following year.

Awards

A doctoral scholarship valued at \$3,500 was made in each of the two years reviewed. The selection of the student is made by the university department applying and historically has been in the field of chemistry.

Research Grants

Direct support of university departments is provided by grants in aid of research for postdoctoral fellows in a field allied to the Company's interests. Three grants were awarded in the period under review with one being made to a university in the United Kingdom. The duration of the grant usually corresponds to the period needed for the student to complete his research. The Company prefers to have a quantity of contacts with many universities rather than lengthy relationships with a limited number of universities and individuals.

Research Contracts

With regard to its own research, Polymer consulted with three academics in 1966 - 67 and with four the following year at a cost of \$2,220 and \$4,490 respectively. The Corporation also contracted university staff for research work during their vacation periods. In 1966 - 67, \$8,000 was spent on one researcher; the following year, \$7,000 was expended for research work conducted by two academics.

Other Research Support

The company is intent on maintaining contact with current activities in fields related to its own areas of specialization and bases its future relationships upon situations as they arise. The Company would also welcome more published information on research work in each university in order to establish and maintain relationships in fields of similar interests.

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
2,000	9,237	3,500	3,000	8,000	—
2,000			3,500		
5,000			2,500	consultants:	
1,500				2,220	
5,000					
2,000					
10,000					
2,500					
4,000					
3,000					
8,000					
15,185					
60,185	9,237	3,500	9,000	10,220	
Grand Total					92,142
1967-1968					
2,000	10,100	3,500	3,000	7,000	—
2,000			3,500		
2,000			2,500	consultants:	
5,000				4,490	
1,500					
2,000					
5,000					
5,000					
3,000					
8,000					
35,500	10,100	3,500	9,000	11,490	
Grand Total					69,590

PRIVY COUNCIL OF CANADA

Research Grants

Although the Special Planning Secretariat of the Privy Council has no formal program, it occasionally supports social science research which is not covered by other federal departments.¹

excluded as they are not permanent federal bodies. Nevertheless, it might be of interest to the reader to note expenditures in these categories during the period surveyed as many members of the academic community carry out research tasks for these investigations. Expenditures are noted in Appendix B.

Other Research Support

As noted in the introduction to this report, task forces, royal and other commissions are

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	2,500 UBC 200 PTE 1,000 CBQ	—	—
			3,700		
Grand Total					3,700
1967-1968					
—	—	—	2,000 UBC 100 PTE 2,000 CBQ	—	—
			4,100		
Grand Total					4,100

¹*Index of Federal Grants in Support of Extra-Mural Research in the Social and Behavioral Sciences 1967 - 68*, Special Planning Secretariat, Ottawa, 1967.

PUBLIC WORKS

Research Grants

In 1966 - 67, no research grants were expended but the following year one grant of \$14,000 was made to Queen's University for research on floating breakwaters and harbour siltation.

which will be expended outside the time limits of this survey. The Canada Emergency Measures Organization paid \$9,915, approximately a third of the contract with Purdue University. The Department of Public Works will pay \$24,085, the remaining portion of the agreement.

Research Contracts

In 1967 - 68, there was one contract amounting to \$34,000 with Purdue University

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	14,000 QU	—	—
			14,000		
Grand Total					14,000

SECRETARY OF STATE

Research Grants

The Citizenship Branch of this Department awarded research grants to stimulate and aid various organizations in developing new programs and activities. These included pilot projects and 'grassroots' level studies in community research.

During 1966 - 67, nine grants in support of research in the social sciences were awarded to

academic and private associations by the Administration and Citizenship Branches. Total expenditures towards research were \$13,461.

In 1967 - 68, the Education Support Branch awarded \$86,975 and \$39,200 to support costing and accessibility studies in the academic community. These studies were carried out under the direction of the Association of Universities and Colleges of Canada.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	Citizenship Branch: 2,136 LAV 2,100 CARL 2,150 McG 325 MONT 250 PTE 600 UM 3,400 PTE 500 PTE 2,000 PTE	—	—
			13,461		
Grand Total					13,461

RESEARCH EXPENDITURES

in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
-	-	-	Education Support Branch: 86,975 39,200 Citizenship Branch: 200 UM 950 McG 100 MONT 1,430 SFU 700 StFX 1,000 WPG 250 US 4,500 CARL 750 PTE 5,000 PTE 1,700 PTE 1,200 PTE 5,000 PTE 2,000 PTE 2,525 PTE 12,000 PTE 2,000 PTE 2,500 PTE	-	-
			169,980		
Grand Total					169,980

SOLICITOR GENERAL

Research Contracts

Two agencies of this Department, the Penitentiary Service and National Parole Board, were involved in expenditures with universities.

During 1966-67, two research contracts were awarded for a total expenditure of \$48,525. A contract with the Centre of Criminology was awarded to the University of Montreal for a study on the typology of inmates and the comparative effectiveness of institutional programs. In addition, Queen's University undertook a psychiatric study of sensory deprivation.

In 1967-68, five universities entered into contracts with the Department at a total expenditure of \$79,015. These contracts permitted research into the following subjects: the continuation of the study on the comparative effectiveness of institutional programs; a study of late-comers to crime; a continuing study on psycho-social adjustment of dangerous sexual offenders; a study on the effectiveness of parole as a correctional instrument; and a study of differential supervision and parole risk.

Expenditures in this category increased by \$30,490 in the period reviewed.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	20,000 MONT 28,525 QU	—
				48,525	
Grand Total					48,525
1967-1968					
—	—	—	—	20,000 MONT 39,215 McG 11,300 UBC 3,500 US 5,000 OTT	—
				79,015	
Grand Total					79,015

TRANSPORT

Research Grants

In 1966 - 67, fourteen research grants were awarded. Out of a total of \$163,500, an amount of \$125,000 was awarded in aid of meteorology. These grants, made payable to the institution concerned and subject to the approval of the Deputy Minister of Transport, were awarded under the same general conditions which apply to the National Research Council's grants program. An additional \$23,500 was awarded for transportation research. The aims of this part of the Grants Program are to help meet transportation needs, to encourage universities to develop transportation study programs and students to specialize in transportation, as well as to attract experienced university personnel.

In addition to the Department's support of university research, money was granted to private associations. In 1966 - 67, there was one grant of \$15,000 while in 1967 - 68 no grants were made to non-university research agencies.

In 1967-68, of the \$214,600 expended, \$150,300 was for meteorological studies and \$64,300 for transportation research.

Research Contracts

During 1966 - 67, contracts with three universities amounted to \$62,600. Payments are made in a lump sum or on a scheduled basis and are always processed through the administrative office of the institution contracted. In 1966 - 67, all contracts with universities were for meteorological services. In 1967 - 68, four contracts for meteorological services were awarded at a total expenditure of \$98,600.

During both 1966 - 67 and 1967 - 68, the Meteorological Branch made contracts with the Saskatchewan Research Council for services costing \$10,000 annually. Total expenditures on research contracts during 1966 - 67 were \$72,600; \$108,600 was spent in 1967 - 68.

RESEARCH EXPENDITURES

in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	meteorology: 25,600 McG 38,100 TO 4,000 YORK 10,000 GU 8,000 WAT 15,000 WO 7,800 US 4,500 UA 12,000 UBC transportation: 5,000 CARL 1,500 UM 5,000 UBC 12,000 UBC 15,000 PTE	55,000 McG 5,000 LAV 2,600 WIND 10,000 SRC	—
			163,500	72,600	
Grand Total					236,100

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	meteorology: 30,600 McG 36,500 TO 5,000 YORK 13,000 GU 9,000 WAT 17,000 WO 9,000 US 7,200 UA 22,000 UBC 1,000 VICT transportation: 10,300 WAT 40,000 UM 11,000 UBC 3,000 UA	60,000 McG 10,000 LAV 25,000 WO 3,600 US 10,000 SRC	—
			214,600	108,600	
Grand Total					323,200

VETERANS AFFAIRS

Awards

The *Children of the War Dead (Education Assistance) Act* provides for assistance to children of eligible veterans up to the age of thirty. Under this program, 28 students were enrolled in masters programs at Canadian universities; 29 students were similarly assisted in 1967 - 68. Of these, a number will follow doctoral programs in 1968 - 69. Mention is made of this because a number of these students will be engaged in research training in subsequent years.

Research Contracts

The Department employs consultants for its various research projects. In most cases, consultants are affiliated with academic institutions or teaching hospitals including veterans hospitals. During 1966 - 67, contracts worth \$88,766 were awarded. Of this total, four contracts valued at \$12,080 were with private practitioners. In 1967 - 68, a total of \$80,747 was awarded in contracts; \$13,067 of this amount went to private practitioners.

RESEARCH EXPENDITURES in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1966-1967					
—	—	—	—	3,500 DAL	—
				1,200 LAV	
				6,000 McG	
				4,500 RVH	
				3,500 McG	
				2,400 McG	
				3,600 PTE	
				2,400 McG	
				3,600 McG	
				3,500 McG	
				1,200 McG	
				2,400 McG	
				2,250 McG	
				3,180 PTE	
				5,500 TO	
				3,900 TO	
				3,500 TO	
				2,640 MSH	
				1,800 PTE	
				3,500 YCH	
				5,496 WO	
				5,500 UM	
				3,500 UM	
				3,500 PTE	
				5,500 UBC	
				1,200 UBC	
				88,766	
Grand Total					88,766

RESEARCH EXPENDITURES
in dollars

Capital Grants	Operating Grants	Awards	Research Grants	Research Contracts	Other Research Support
1967-1968					
—	—	—	—	3,500 DAL 7,000 McG 5,000 RVH 3,500 McG 3,600 PTE 2,400 McG 1,000 MGH 3,600 McG 3,500 McG 1,200 McG 2,500 McG 2,400 McG 3,180 McG 5,967 PTE 2,500 MGH 3,500 TO 6,000 WO 600 WO 600 WO 3,500 UM 3,500 PTE 5,500 UBC 1,200 UBC 5,500 UM	—
				80,747	
Grand Total					80,747

APPENDICES

Appendix A
Master Table
FEDERAL EXPENDITURES ON RESEARCH
1966-67 and 1967-68

ORGANIZATION	CAPITAL GRANTS		OPERATING GRANTS		AWARDS		RESEARCH GRANTS		RESEARCH CONTRACTS		OTHER RESEARCH SUPPORT	
	1966-67	1967-68	1966-67	1967-68	1966-67	1967-68	1966-67	1967-68	1966-67	1967-68	1966-67	1967-68
Agriculture												
Air Canada			304,660	479,970			9,668	27,877	151,750	154,130		
Atlantic Development Board	481,627	1,741,368							37,600	3,900		
Atomic Energy Control Board	2,000,000	2,500,000							64,589	84,206		
Atomic Energy of Canada Ltd.					110,131	119,216			543,186	781,986		
Bank of Canada					3,548,000	7,513,000	1,483,000	3,105,000	22,580	28,700		
Canada Council					5,000	5,000		9,915	47,121	82,887		
Canada Emergency Measures Organization		19,450							15,700	24,000		706,000
Canadian National Railways									14,677			
Canadian Transport Commission												
Central Mortgage and Housing Corp.												
Consumer and Corporate Affairs												
Dominion Bureau of Statistics					11,000	76,000	141,000	519,415		358,753		
Dominion Coal Board							36,200	47,700	49,430	35,122	60,835	78,470
Economic Council of Canada									140,043	211,692	13,800	2,300
Eldorado Mining and Refining Ltd. and Northern Transportation Co. Ltd.							84,360	45,000				
Energy, Mines and Resources					532,592	567,739	333,797	517,167	75,341	109,248	2,667,000	2,762,000
External Affairs, External Aid Office					1,209,839	1,443,451			65,820	21,765		

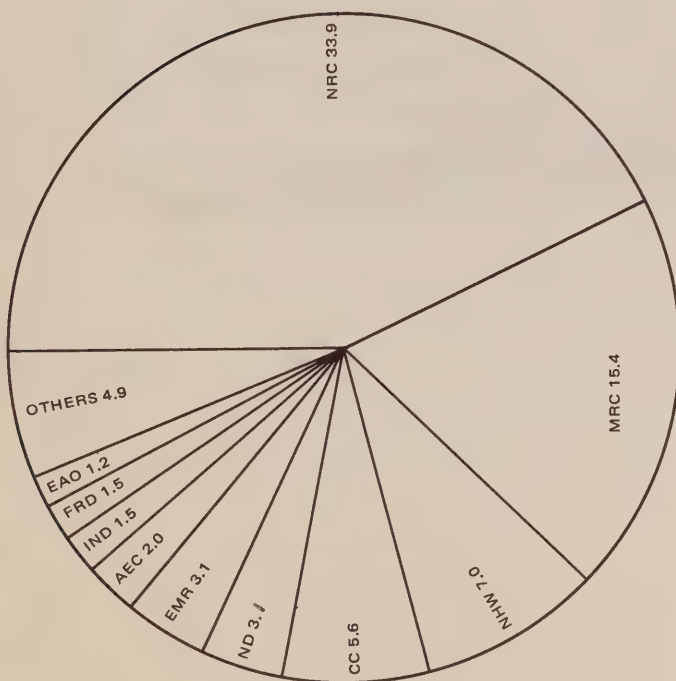
Master Table (Conc.)
FEDERAL EXPENDITURES ON RESEARCH IN
1966-67 and 1967-68

ORGANIZATION	CAPITAL GRANTS		OPERATING GRANTS		AWARDS		RESEARCH GRANTS		RESEARCH CONTRACTS		OTHER RESEARCH SUPPORT	
	1966-67	1967-68	1966-67	1967-68	1966-67	1967-68	1966-67	1967-68	1966-67	1967-68	1966-67	1967-68
Health Resources	2,149,586	2,307,561										
Mental Retardation												
Medical Services							17,000	136,739				
Food and Drug								17,500				
Directorate									14,000	25,000		
Welfare Assistance					61,693	55,989						
and Services												
Fitness and Amateur					84,126	94,742						
Sport	14,959		150,000	175,758			180,988	244,615				
National Museums												
Museum of Natu-									59,465	83,634		
ral Sciences									149,412	228,995		
Museum of Man												
National Gallery of												
Canada									2,000	6,000		
National Research Council	9,499,000	11,109,000	18,250,000	25,839,000	4,704,122	5,911,970	965,000	1,687,000	435,240	488,338		
Polymer Corporation Ltd.	60,185	35,500	9,237	10,100	3,500	3,500	9,000	9,000	10,220	11,490		
Privy Council of Canada							3,700	4,100				
Public Works								14,000				
Secretary of State							13,461	169,980				
Solicitor General									48,525	79,015		
Transport							163,500	214,600	72,600	108,600		
Veterans Affairs									88,766	80,747		
TOTALS (EST)	6,753,576	20,344,553	20,258,077	27,259,779	12,985,580	19,778,923	20,443,608	27,843,763	4,686,051	6,101,802	4,140,753	4,562,831
GRAND TOTALS (EST)												
						1966-67	1967-68					
						\$79,267,645	\$105,891,651					

FEDERAL EXPENDITURES ON RESEARCH

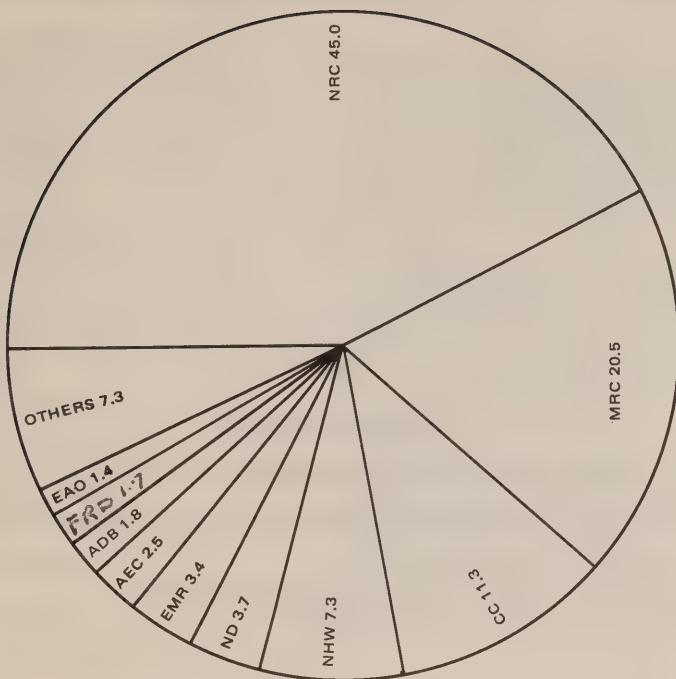
in millions of dollars

1966-1967



NRC — National Research Council
MRC — Medical Research Council
CC — Canada Council
NHW — National Health and Welfare
ND — National Defence (DRB)

1967-1968



EMR — Energy, Mines and Resources
AEC — Atomic Energy Control Board
IND — Industry
FRD — Forestry and Rural Development
EO — External Aid Office
ADB — Atlantic Development Board

Appendix B

EXPENDITURES OF ROYAL COMMISSIONS, TASK FORCES, AND INQUIRIES

	1966-67	1967-68
Royal Commission on Bilingualism and Biculturalism	\$1,600,982	\$1,049,853
Royal Commission on Farm Machinery	79,716	472,837
Royal Commission on Health Services	96,255	15,920
Royal Commission on Pilotage	205,736	139,512
Royal Commission on Security Procedures	30,000	268,969
Royal Commission on Status of Women	9,408	518,666
Royal Commission on Taxation	764,707	117,927
Total	\$2,786,804	\$2,583,684
Task Force on the Structure of Canadian Industry	—	\$ 331,892
Task Force on Labour Relations	—	676,439
Total		\$1,008,331

Department of Labour

Inquiry Commission on Canadian National Railways "Run-throughs" (Freedman Report)	\$ 1,779	—
Inquiry Commission on Hours of Work in the Trucking Industry under Federal Jurisdiction	—	\$ 16,596
Board of Trustees of the Maritime Transportation Unions	165,520	80,477
Inquiry Commission on Hours of Work in the Newfoundland Shipping Industry Inquiry Commission on the St. Lawrence Ports (Picard Report)	— 126,323	4,526 218,450
Total	\$ 293,622	\$ 320,049

Privy Council Office

Inquiry as to the Future of the Air Canada Overhaul Base at Winnipeg International Airport		
Inquiry into Complaints Made by George Victor Spencer		
Inquiry Re: The Honourable L.A. Landreville		
Inquiry into Matters Relating to Gerda Munsinger		
Inquiry into Working Conditions in the Post Office Department		
Report of the Preparatory Committee on Collective Bargaining in the Public Service		
Total		\$ 219,566

Appendix C

FEDERAL ORGANIZATIONS NOT INVOLVED WITH RESEARCH IN THE ACADEMIC COMMUNITY 1966-68

Agricultural Products and Stabilization Board
Auditor General
Canada Labour Relations Board
Canadian Arsenals Ltd.
Canadian Broadcasting Corp.
Canadian Commercial Corp.
Canadian Dairy Commission
Canadian Maritime Commission
Canadian Overseas Telecommunications Corp.
Canadian Patents and Development Ltd.
Canadian Pension Commission
Canadian Radio-Television Commission (BBG)
Canadian Wheat Board
Chief Electoral Officer
Comptroller of the Treasury
Defence Construction Ltd.
Defence Production, Dept. of
Eastern Rockies Forest Conservation Board
Export Credits Insurance Corp.
Fisheries Prices Support Board
House of Commons

Immigration Appeal Board
Justice, Dept. of
Merchant Seamen Compensation Board
Municipal Development and Loan Board
National Arts Centre
National Battlefield Commission
National Capital Commission
National Revenue, Dept. of
Northern Canada Power Commission
Post Office Dept.
Public Printing and Stationary, Dept. of
Public Service Commission
Restrictive Trade Practices Commission
Royal Canadian Mounted Police
St. Lawrence Seaway Authority
Superintendent of Insurance
Tariff Board
Tax Appeal Board
Trade and Commerce, Dept. of
Unemployment Insurance Commission
War Veterans Allowance Board

